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ABSTRACT

Data from test administration timing records, the Scholastic Aptitude Test (SAT) history file, and a survey questionnaire were used to investigate the issues of comparable testing time and eligibility for special test accommodations for SAT examinees with disabilities. In 1986-87 and 1987-88, 17,632 special test administrations were given. Comparable testing time for disabled examinees was found to be between 1.5 and 2 times that of non-disabled examinees. Time limits in that range would assure that approximately equal percentages of disabled and non-disabled examinees would complete each SAT section. Additional time was found necessary for blind students using Braille or cassette versions of the test. Eligibility for special test administration is tied to the severity of disability and documentation of disability. Some levels of disability could be distinguished for those with sensory disabilities, but the severity of disability could not be defined for physically disabled or learning-disabled examinees. It was difficult to isolate the need for test accommodations based on school practices. Alternatives to the current eligibility policy are discussed, including a change to school-based criteria and the use of individualized testing programs, or a change to empirically derived testing times. Five graphs and 40 tables present study data. Thirteen references are included. Appendix A presents the student disability questionnaire, and Appendix B presents the draft application form for special test administration. (Author/SLD)

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College Board Report
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Eligibility Issues and Comparable Time Limits for Disabled and Nondisabled SAT® Examinees

Marjorie Ragosta
Cathy Wendler

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Cathy Wendler

College Board Report No. 92-5
ETS RR No. 92-35

College Entrance Examination Board, New York, 1992

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CONTENTS

Abstract 1

Introduction and Overview 1

Data Collection 2
- Timing Data 2
- SAT History File Data 2
- Questionnaire Data 2
- The Complete (Merged) Data Base 3

Comparable Timing 3
- Actual Testing Time by Section 6
- Actual Completion Rates 8

Eligibility Based on Level of Disability 8
- Current Policy 8
- The Federal Perspective 9
- Rationale for the Current Study 9
- Results across Disability Groups 10
- Results within Disability Groups 11
- Discussion 13

Disabled Examinees from Standard and Special Test Administrations 14
- Sample Size and SAT Performance 14
- School Practices and Special Test Administrations 15
- Discussion 18

Eligibility for Extraordinary Timing 20
- Across Disability Groups 20
- Within Disability Groups 20

A Discussion of the Issues 23
- Impetus for Policy Change 23
- Eligibility 23
- Timing 26

Summary and Conclusion 29

References 29

Appendix A. Disability Questionnaire 30

Appendix B. Draft Application Form for Special Test Administrations 32

Figures

1. Mean timing: hearing-impaired students. 7

2. Mean timing: learning-disabled students. 7

3. Mean timing: physically disabled students. 7

4. Mean timing: visually impaired students. 8

5. Distribution of blind test takers using braille SATs. 28

Tables

1. Number of Plan A Tests Administered (1986–87 and 1987–88) and Percent of Total, by Disability 2

2. Response Rates (Percent) for Disability Questionnaire 3

3. Numbers and Percentages of Respondents with Disabilities 3

4. Numbers of Examinees with Complete Information, by Disability 3

5. Mean Time in Minutes to Complete Five Sections of the SAT 4

6. 100 Percent Completion Rates for Nondisabled Students in Four Standard SAT Administrations 5

7. Time for 64.4 Percent of Disabled Students to Complete the SAT: Packer's and Current Data Compared 5

8. Time for 54.5 Percent of Disabled Students to Complete the SAT: Packer's and Current Data Compared 6

9. Tentative Section Timing for Disabled Students Taking Different Versions of the SAT, Using Packer's (P) and Current (C) Data 6

10. Percent of Disabled Examinees Completing the SAT under Different Timing Conditions 9

11. Percent of Visually Impaired Examinees Completing the SAT under Different Timing Conditions 9

12. Likelihood of Qualifying for Special Test Accommodations 11

13. Percent of Respondents Qualifying for Special Accommodations 11

14. Percent of Disabled Examinees Qualifying for Special Test Administrations 11

15. Responses from Hearing-Impaired Individuals 12

16. Percent of Hearing-Impaired Respondents Qualifying for Special Accommodations 12

17. Responses from Learning-Disabled Individuals 12

18. Learning-Disabled Respondents in More than One Subgroup 12

19. Percent of Learning-Disabled Respondents Qualifying for Special Accommodations 13

20. Percent of Learning-Disabled Subgroups in Simplified Eligibility Categories 13

21. Responses from Physically Disabled Individuals 13

22. Percent of Physically Disabled Respondents Qualifying for Special Accommodations 14

23. Responses from Visually Impaired Individuals 14

24. Percent of Visually Impaired Respondents Qualifying for Special Accommodations 14

25. SAT Scores of Respondents from Standard and Special Administrations 15

26. Subgroup Sample Sizes and Mean SAT Scores 16

27. Percent of Disabled Examinees from Standard and Special Test Administrations Tentatively Qualifying for Special Accommodations 17

28. Percent of Disabled Examinees from Standard and Special Test Administrations Tentatively Qualifying for Special Accommodations, by Simplified Eligibility Categories 17

29. Percent of Hearing-Impaired Examinees from Standard and Special Administrations Tentatively Qualifying for Special Accommodations 17

30. Percent of Learning-Disabled Examinees from Standard and Special Administrations Tentatively Qualifying for Special Accommodations 18

31. Percent of Physically Disabled Examinees from Standard and Special Administrations Tentatively Qualifying for Special Accommodations 18

32. Percent of Visually Impaired Examinees from Standard and Special Administrations Tentatively Qualifying for Special Accommodations 19

33. Mean Minutes to Completion and Percent of Disabled Students Completed in Time and a Half and Double Time 20

34. Hearing Impaired: Mean Minutes to Completion and Percent Completed in Time and a Half and Double Time 21

35. Learning Disabled: Mean Minutes to Completion and Percent Completed in Time and a Half and Double Time 21

36. Physically Disabled: Mean Minutes to Completion and Percent Completed in Time and a Half and Double Time 22

37. Visually Impaired: Mean Minutes to Completion and Percent Completed in Time and a Half through Triple Time 22

38. Legally Blind Examinees Certain to Qualify: Mean Minutes to Completion and Percent Completed in Time and a Half through Triple Time 22

39. Emotionally Disabled: Mean Minutes to Completion and Percent Completed in Time and a Half and Double Time 23

40. Sample Timing Policy Decisions 27

ABSTRACT

This project used data from test administration timing records, the College Board's Scholastic Aptitude Test (SAT) history file, and a survey questionnaire to investigate two issues: comparable testing time and eligibility for special test accommodations for SAT examinees with disabilities.

Comparable testing time for disabled examinees was found to be between 1½ and 2 times that for nondisabled examinees. Time limits in that range would assure that approximately equal percentages of disabled and nondisabled students would complete each section of the SAT. The exception was blind students using braille or cassette versions of the test, who required between double and triple time.

Eligibility for special test accommodations is tied to severity of disability and documentation of disability. Some levels of disability could be distinguished for students with sensory disabilities, based on self-reports and confirmed by the presence or absence of individualized education programs (IEPs). For example, IEPs were reported for 80 percent of totally blind candidates, 50 percent of legally blind candidates, and only 28 percent of visually impaired examinees who were not considered legally blind. Similarly, 90 percent of hearing-impaired students using American Sign Language (ASL) reported having IEPs, compared to 76 percent of those using total communication (English and sign) and 42 percent of those for whom English was the preferred communication mode. Severity of disability could not be defined for physically disabled or learning-disabled examinees, except on the basis of IEPs. However, it was difficult to isolate the need for test accommodations based on school practices (e.g., IEPs or special schools or classes), since examinees eligible for special test administrations were often tested under standard conditions.

Alternatives to the current eligibility policy are discussed, including a change to school-based criteria and the use of individualized testing programs. A change to empirically derived testing times is also discussed.

INTRODUCTION AND OVERVIEW

The primary purpose of this project was to establish empirically derived testing times for special administrations of the SAT for examinees with disabilities. A secondary purpose was to establish eligibility guidelines for individuals taking special administrations.

When regulations implementing Section 504 of the Rehabilitation Act of 1973 were promulgated by the U.S. Department of Health, Education, and Welfare in 1977, they mandated that college and graduate admission tests for candidates with disabilities be validated and reflect the individual's aptitude and achievement rather than any disabilities that were unrelated to what the test measured. The regulations also prohibited inquiry into the disability status of applicants for admission before their acceptance. The latter regulation created a dilemma: Nonstandard administrations of standardized tests were routinely flagged to indicate that test scores might not be comparable to scores from tests given under standard conditions, but flagging appeared to violate the prohibition on preadmission inquiry. To solve this dilemma, the Office of Civil Rights held the implementation provisions of the 504 regulations in abeyance (Redden et al. 1978) and funded a Panel on Testing of Handicapped People to report on the issues. The panel's report (Sherman and Robinson 1982) called for a four-year research effort to determine the validity and comparability of admission tests for people with disabilities. The College Board, Educational Testing Service (ETS), and the Graduate Record Examinations Board funded a series of studies between 1982 and 1986, culminating in the publication of *Testing Handicapped People* (Willingham et al. 1988). The research showed that test timing was the primary source of noncomparability between test scores. The report concluded: "Assuming success in establishing test time limits that take proper account of disabling conditions, the tests would then be largely comparable from a technical perspective." In that event, flagging policies could be reevaluated and, to the extent possible, the flagging of test scores from special administrations could be discontinued.

However, ETS has had major concerns about the possible misuse of special test administrations. Most test takers would like to have the extra testing time allowed for people with disabilities. Although the flags on test scores from special administrations originated because a standardized test was administered in a nonstandard way, the flag has also been perceived as a precaution against the misuse of special testing accommodations. The elimination of flagging would increase the need to enforce eligibility guidelines and monitor the use of special test administrations.

Not all people with disabilities require special test accommodations, and not all people who require special accommodations need extra testing time. This report focuses on who is eligible for extra testing time and how much extra time is appropriate. Several data bases and studies are described, each one especially well suited to answer specific questions related to test timing. A set of recommendations on eligibility and timing is also presented. Following is an overview of the report and the questions it hopes to answer:

1. *Data collection.* What data bases were used in the study? How were data collected?
2. *Comparable timing.* How much time should be given to examinees with different disabilities using different test formats in order for completion rates for disabled and nondisabled examinees to be roughly comparable?
3. *Eligibility based on level of disability.* Who is eligible for special test administrations? How can we best identify levels of disability?
4. *Disabled examinees from standard and special administrations.* Can we differentiate disabled students who need special accommodations from

those who can take standard administrations? How well does the current policy work in differentiating the two groups?

5. *Eligibility for extraordinary timing.* Are there identifiable subgroups of disabled individuals whose needs for extra testing time are beyond the ordinary?
6. *A discussion of the issues.* What are some of the alternatives?

DATA COLLECTION

Several data bases were used in this study: special test administration timing records from 1986 to 1988, SAT history file data for the same period, questionnaire data obtained especially for the study from a sample of disabled students from standard as well as special test administrations, and a smaller data set obtained by merging timing and questionnaire data. Each of these data sets is described below.

Timing Data

These timing data came from administrations of the SAT under the Admissions Testing Program's (ATP's) Plan A—the original program offering special test accommodations for people with disabilities. Data from Plan B, which offers learning-disabled examinees taking the regular-print test an extra 90 minutes in group administrations on specific national testing dates, were not included. When a Plan A special test administration of the SAT is given, two data-collection forms are supposed to be completed: One form indicates (among other things) the individual's disability and the test edition requested; the other is a timing record completed by the test administrator. Both forms from all Plan A administrations of the SAT for the testing years 1986–87 and 1987–88 were retrieved from files, reviewed, and keypunched to form a data tape.

The number of complete records for special test administrations from 1986 to 1988 is presented by disability group in Table 1. Almost four out of five test takers using special accommodations had learning disabilities. About 9 percent of examinees had visual disabilities, 4 percent hearing impairments, 4 percent physical disabilities, and 2 percent multiple disabilities. This data base was used to establish tentative testing times for individuals with different disabilities who took different editions of the SAT: braille, cassette, large-type, and regular-type tests. The results of analyses using this data base were used to consider answers to the following question: How much time should be given to examinees with different disabilities using different test formats in order for completion rates for disabled and nondisabled examinees to be roughly comparable?

Table 1. Number of Plan A Tests Administered (1986–87 and 1987–88) and Percent of Total, by Disability

Disability	*Number*	*Percent*
Hearing	660	4
Learning	13,868	79
Physical	787	4
Visual	1,603	9
Multiple	377	2
Unclassified	337	2
Total	17,632	100

SAT History File Data

The SAT history file includes responses to the Student Descriptive Questionnaire (SDQ), SAT-verbal and SAT-mathematical scores, and identifying data. The SDQ contained a question about disabilities that helped identify individuals for the current research. The SAT history file was used to:

- Create a special data base of individuals with disabilities who had taken standard or special administrations of the SAT during the relevant time period.
- Randomly select and obtain addresses of students who would receive survey questionnaires.
- Match and merge its data with the timing data described above, so that SAT scores for different groups could be obtained.

The history file is not the best source of information for research on people with disabilities. Considerable amounts of data could not be matched, and many individuals from special test administrations were not identified. A better system for systematically collecting data on test administrations for disabled people is needed.

Questionnaire Data

A disability questionnaire was developed especially for the current research because no data were available that could distinguish the severity of the disability within the four disability categories: hearing impairments, learning disabilities, physical disabilities, and visual impairments. Two categories of questions were devised to obtain subgroup information: One set of questions attempted to identify subgroups within categories of disability; the other attempted such identification through questions about schools, school records, and school practices. The disability questionnaire is presented in Appendix A.

The history file (described above) was used to identify questionnaire recipients based on a selection strategy designed to assure a board range of levels of disability. Strategies were developed to identify individuals who had taken Plan A (individual test administrations for people with disabilities), Plan B (group administrations with extra time for people with learning disabilities), and standard test administrations. Recipients were selected on the basis of disability and the type of test administration. For example, learning-disabled recipients were selected from those who had taken

Table 2. Response Rates (Percent) for Disability Questionnaire

Disability	*Plan A Only*	*Plan A and Standard*	*Standard Only*	*Plan B Only*	*Plan B and Standard*	*Plan A and Plan B*	*Plan A, B, and Standard*
Hearing	48	66	33				
Learning	33	41	43	37	41	42	44
Physical	47	60	32				
Visual	47	49	15				

Plan A only; Plan A and a standard administration; Plan B only; Plan B and a standard administration; Plan A and Plan B; Plan A, Plan B, and a standard administration; and a standard administration only. A second round of data collection was necessary when it became apparent that insufficient numbers of disabled test takers with timing records had been identified on the first attempt.

Response rates were low, although eventually more than 2,100 individuals returned usable questionnaires. Table 2 identifies response rates. The very low response rate for visually impaired test takers from standard administrations was accompanied by a flurry of phone calls from individuals who had taken standard administrations of the SAT and wore glasses, but did not consider themselves disabled in any way. They clearly did not belong in the category and were not included.

The final numbers of respondents with different disabilities in the disability questionnaire data base are presented in Table 3. The disability questionnaire data base was used to consider the following questions: Who is eligible for special test administrations? How can we best identify levels (severity) of disability?

The Complete (Merged) Data Base

The disability questionnaire data base described above was merged with the timing data base described earlier to produce a smaller data base with complete information on all disabled test takers. There were 1,104 special test administration examinees with timing data, SAT scores, and questionnaire responses and an additional 100 or so with some missing data. There were also 397 examinees from standard test administrations with complete data. The numbers of examinees with complete files in the merged data base are given in Table 4.

Table 3. Numbers and Percentages of Respondents with Disabilities

Disability	*Number*	*% of Total*
Hearing	290	14
Learning	1,045	49
Physical	564	26
Visual	596	28
Psychological	79	4
Total*	2,126	

*The numbers do not sum to the total because some respondents indicated more than one disability.

This data base was used to attempt to differentiate between those disabled students who need special accommodations and those who can be tested in standard administrations. It was also used to examine how well the current policy works in differentiating the two groups. In addition, the data base was used to identify possible subgroups of disabled individuals who need more than ordinary amounts of extra testing time.

COMPARABLE TIMING

Results of an earlier study (Packer 1987) indicated that the amount of extra testing time needed by examinees with disabilities differed both by disability group and by the test format used. Although special test editions of the SAT are offered in braille, cassette, large print, and regular print, only test takers with visual disabilities routinely make use of all four formats. An assumption was also made that candidates reporting more than one disability might require different timing than candidates having just one disability. Such individuals were grouped under the category of multiple disabilities. Table 5 presents the mean time taken to complete the test for all groups (disability by test format) with 30 or more test takers over the two-year period.

In Table 5, data are presented for the full data set and for the set with duplicates removed; examinees with two or more special administrations had only their most recent SATs included. The mean differences in time between the full data set and the set with duplicates removed were negligible—at most five minutes—so the full data set was used in subsequent analyses.

Several things are evident in Table 5. Mean times varied widely across disability groups. Hearing-impaired examinees took the least amount of time (217 minutes on av-

Table 4. Numbers of Examinees with Complete Information, by Disability

Disability	*Standard Administration (N = 397)*	*Special Administration (N = 1,104)*
Learning	132	527
Hearing	77	121
Physical	66	276
Visual	42	408
Emotional	18	37
Multiple	62	236

Table 5. Mean Time in Minutes to Complete Five Sections of the SAT*

	Full Data Set			*Duplicates Removed***		
	No.	*Min.*	*SD*	*No.*	*Min.*	*SD*
Hearing						
Regular	639	217	77	599	216	77
Learning						
Cassette	2,282	262	85	2,035	262	86
Large print	505	258	100	454	260	102
Regular	10,999	239	85	9,964	238	85
Physical						
Cassette	31	293	112	31	293	112
Large print	32	282	88	27	277	84
Regular	721	250	97	659	250	96
Visual						
Braille	208	363	133	179	365	131
Cassette	156	352	135	142	357	135
Large print	913	258	98	815	259	98
Regular	320	251	85	289	252	87
Multiple						
Cassette	53	280	84	49	281	85
Large print	113	293	114	103	295	107
Regular	208	250	94	190	252	96
Total number	17,180			15,536		

*Standard testing time for five sections of the SAT is 150 minutes.
**Individuals who were tested twice had the earlier data omitted.

erage) and had the smallest standard deviation (77 minutes). At the other extreme, blind examinees using the braille or cassette editions took the greatest amount of testing time (more than 350 minutes) and had the largest standard deviation (more than 130 minutes). The difference between the highest and lowest means was about 2½ hours—the amount of time normally used for a standard administration of five sections of the SAT. Within disability groups, the regular-print test appeared to require somewhat less time than other formats. Differences within disability groups were greatest for examinees with visual disabilities. Those using the braille and cassette editions used considerably more time (100 minutes or more, on average) than those using large print or regular print.

The mean amount of time *needed* is not the appropriate measure to use when establishing the amount of time allowed for special test administrations. In order to set comparable testing times, one must consider the constraints under which the general population of test takers operates. What percent of the general population actually answers every question? For the four forms of the SAT used by people with disabilities from 1986 to 1988, the 100 percent completion rates for nondisabled examinees from earlier standard administrations were obtained and are presented in Table 6. Completion was defined in this context as answering the very last item of each test section, although this definition confounds the difficulty of the last item with timing. Completion rates were generated for the two verbal and two mathematical sections of the tests. From the completion data, estimates of the average completion rates for nondisabled examinees across tests and sections of the SAT can be obtained. Those rates can then be used to estimate the amount of extra time needed for comparable percentages of disabled examinees to complete the test.

Averaging the completion rates of each section—Verbal 1 and 2, Math 1 and 2—across four tests produced the figures in the last column, the overall mean of which is 64.4. On average 64.4 percent of nondisabled students completed a mathematical or verbal section of the SATs in this study, although fewer than 64.4 percent would actually have completed the whole test. The 64.4 percent completion figure represents an upper limit for the amount of testing time that might be established.

Theoretically, the amount of time for 64.4 percent of disabled people to complete the test could be established statistically. Assuming a normal distribution of testing time, the mean and that proportion of the standard deviation conforming to 64.4 percent could be used to establish an upper time limit for people with different disabilities using different testing formats to complete the test. This procedure could be used to compare statistically generated times for disabled students in the current data base and those from an earlier study by Packer (1987) covering four years of special test administrations from 1979 to 1983. Such comparison might help determine how stable such timing would be across years and forms of the test. Tentative testing times can then be compared with actual testing times in the current study. The number of minutes for 64.4 percent of disabled students in both studies to complete the SAT is presented in Table 7.

There is remarkable consistency across the two data bases in the estimates of time required for 64.4 percent of

Table 6. 100 Percent Completion Rates for Nondisabled Students in Four Standard SAT Administrations

Test Section	Forms				Mean Percent Completion
	Test A	Test B	Test C	Test D	
Verbal 1	48.3	70.7	58.1	52.7	57.4
Verbal 2	76.7	65.9	57.6	73.2	68.3
Math 1	63.7	79.9	77.8	53.9	68.8
Math 2	66.5	69.5	51.0	64.1	63.0
Total test	48.3	65.9	51.0	52.7	54.5–64.4

examinees with disabilities to complete the test. Of the ten comparisons only two had differences greater than five minutes of total testing time. The only substantial discrepancy involved visually impaired examinees taking the cassette version of the test. On average, hearing-impaired individuals required the least amount of extra time, and visually impaired students taking the braille or cassette versions of the test required the greatest amount of time. The Packer (1987) data excluded individuals with more than one disability, so no comparisons can be made for multiply disabled examinees.

Although an average of 64.4 percent of nondisabled students completed one section of the SAT, Table 6 indicates that a smaller percentage of students would complete the total test. Under the strict section timing limits of standard administrations, on average no more than 54.5 percent (the mean of the four percentages in the last row of Table 6) of nondisabled examinees completed every question in the verbal and mathematical sections of the SATs used for disabled students in this study. Comparable timing for students in special administrations should allow no more than 54.5 percent to complete all test sections. Table 8 presents timing figures based on the 54.4 percent completion rate.

Again there is considerable agreement about testing time across the two data bases, with only one difference of any magnitude. Since overall testing time must be divided into testing times for five sections, even the 32-minute difference amounts to only about six minutes per section. Again the hearing-impaired students required the least time and the visually impaired students using braille or cassette versions required the most time.

Tentative section timing, obtained by dividing the tentative total times of Tables 7 and 8 by five, is presented in Table 9. Rather small differences in tentative section timing are evident across years (Packer's data versus the current data), across percentages used to calculate timing (64.4 percent versus 54.5 percent), and across most disabilities and versions of the test. Based on six years of data and almost 30,000 timing records from special administrations, the old rule of thumb used for testing individuals with disabilities seems to have been a fairly accurate estimate. Double the amount of testing time appears to be a generally appropriate

Table 7. Time for 64.4 Percent of Disabled Students to Complete the SAT: Packer's and Current Data Compared

	Total No.	Packer		Current		
		No.	Min.	No.	Min.	
Hearing						
Regular	1,229	590	247	639	245	2
Learning						
Cassette	3,347	1,065	292	2,282	293	1
Large print	951	446	300	505	295	5
Regular print	18,052	7,053	275	10,999	270	5
Physical						
Large print	95	63	318	32	315	3
Regular print	1,450	729	291	721	286	5
Visual						
Braille	545	337	415	208	412	3
Cassette	356	200	366	156	402	36
Large print	2,455	1,542	303	913	294	9
Regular print	892	572	286	320	282	4
Multiple						
Cassette	53	—	—	53	306	
Large print	113	—	—	113	321	
Regular print	208	—	—	208	274	

*In total number of minutes.

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Table 8. Time for 54.5 Percent of Disabled Students to Complete the SAT: Packer's and Current Data Compared

		Packer		*Current*		
	Total No.	*No.*	*Min.*	*No.*	*Min.*	*Difference**
Hearing						
Regular	1,229	590	231	639	226	5
Learning						
Cassette	3,347	1,065	270	2,282	272	2
Large print	951	446	277	505	270	7
Regular print	18,052	7,053	255	10,999	249	6
Physical						
Large print	95	63	294	32	292	2
Regular print	1,450	729	269	721	261	8
Visual						
Braille	545	337	378	208	378	0
Cassette	356	200	336	156	368	32
Large print	2,455	1,542	277	913	269	8
Regular print	892	572	265	320	261	4
Multiple						
Cassette	53	—	—	53	xxx	
Large print	113	—	—	113	xxx	
Regular print	208	—	—	208	xxx	

*In total number of minutes.

limit across most disability groups. Blind examinees using braille or cassette tests, however, need considerably more time than those with other disabilities—about 2⅔ the usual time. Deaf and hard-of-hearing students use somewhat less than double time.

Actual Testing Time by Section

Although there is good consistency across data bases (and years) in the total amount of time needed by disabled students using different test formats, it is also important to consider the consistency of the time required for different sections of a total test. Figures 1–4 portray the mean number of minutes required for examinees in each of the four major disability groups to complete each of five sections of the SAT: two verbal sections, two mathematical sections, and the Test of Standard Written English. Two things are immediately apparent in the plots: the differences in mean time across disability groups and the uneven distribution of time across sections of the test.

Table 9. Tentative Section Timing for Disabled Students Taking Different Versions of the SAT, Using Packer's (P) and Current (C) Data

	64.4% Completion (Min.)		*54.5% Completion (Min.)*		
	(P)	*(C)*	*(P)*	*(C)*	*Rounded Ranges (Min.)*
Hearing					
Regular	49	49	46	45	45–50
Learning					
Cassette	58	59	54	54	55–60
Large print	60	59	55	54	55–60
Regular print	55	54	51	50	50–55
Physical					
Large print	64	63	59	58	60–65
Regular print	58	57	54	52	50–60
Visual					
Braille	83	82	76	76	75–85
Cassette	73	80	67	74	65–80
Large print	61	59	55	54	55–60
Regular print	57	56	53	52	50–55
Multiple					
Cassette	—	61	—		60
Large print	—	64	—		65
Regular print	—	55	—		55

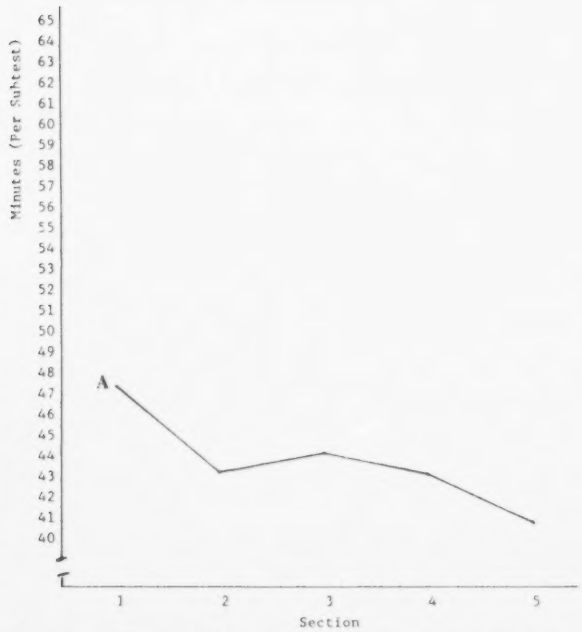

Figure 1. Mean timing: hearing-impaired students. A: Regular type.

Differences Across Disability Groups

The finding noted earlier on mean total testing times for hearing-impaired examinees and blind examinees using braille and cassette tests becomes immediately apparent in the plots. Hearing-impaired students consistently take the least amount of time, and blind students using braille and cassette tests consistently take the most. Times for the rest of the students with disabilities cluster between those extremes, with a tendency for multiply disabled examinees using cassette and large-print tests to use somewhat more time than the remaining groups.

Uneven Distribution of Time

There is a general tendency for disabled test takers to spend more time on the first section of the test than on any other. Thus, time is not distributed evenly across sections of the test, as is required for examinees taking standard administrations. Several questions come to mind: Is this phenomenon associated with disability? The finding is so pervasive—covering all disability-by-format groupings—that it seems unlikely that disability could account for it. Is this phenomenon part of learning to pace oneself in a nonstandard test administration? Do examinees realize that they have spent too much time on the first section and speed up thereafter? Might there be some evidence of a similar phenomenon in the general population? Were some sections of these tests more speeded than others?

The speededness data in Table 6 imply that nondisabled test takers would be likely to use more time on some sections than others if they were not held to strict section timing. Overall, the Verbal 1 section appears to be more speeded than other sections of the SAT for all populations. In order to make test administration for disabled examinees more comparable to that for nondisabled examinees, special test administrations should include section timing, as standard procedures do. Support for this practice comes from an

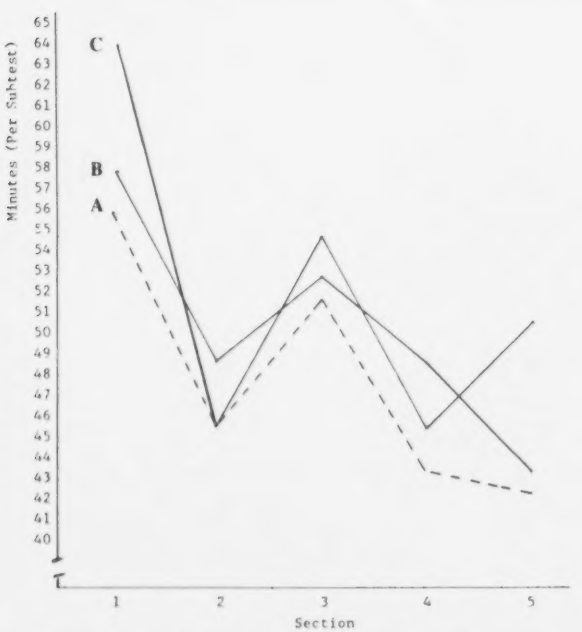

Figure 2. Mean timing: learning-disabled students. A: Regular type; B: large type; C: cassette.

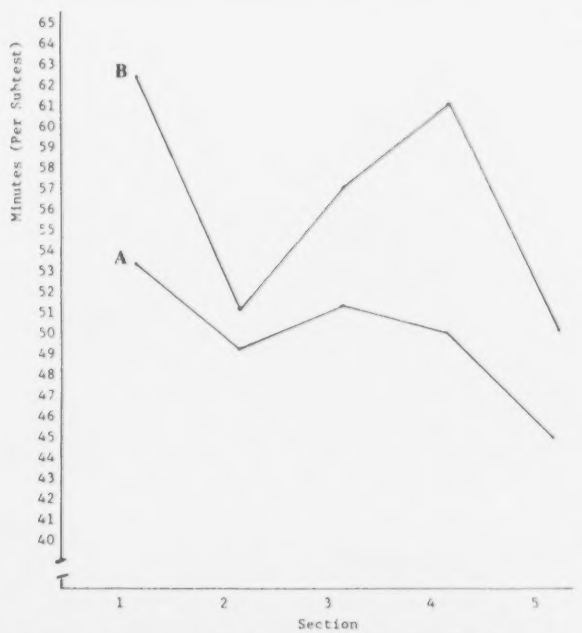

Figure 3. Mean timing: physically disabled students. A: Regular type; B: large type.

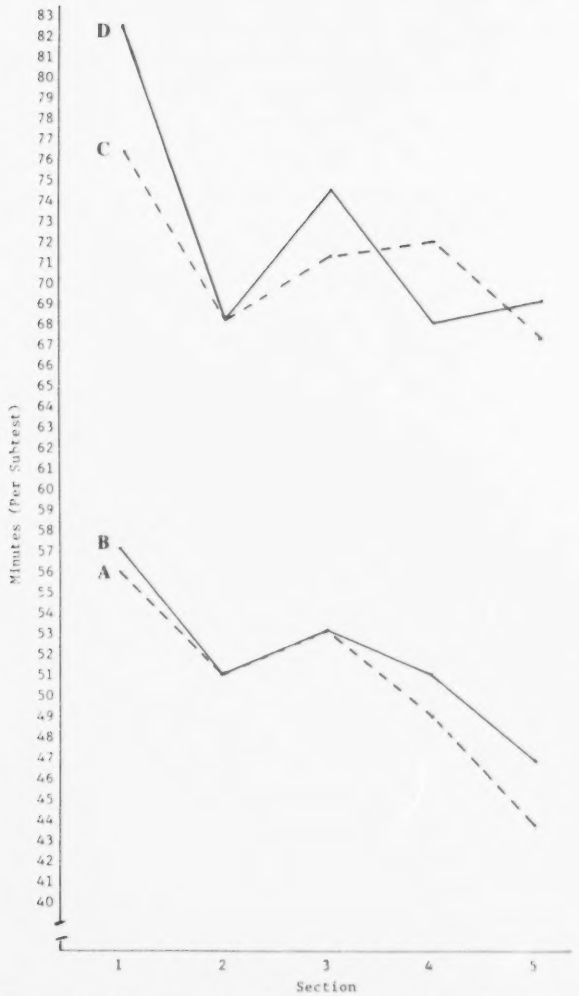

Figure 4. Mean timing: visually impaired students. A: Regular type; B: large type; C: cassette; D: braille.

earlier study (Bennett, Rock, and Kaplan 1988) that showed that examinees with disabilities were more likely than others to complete some sections of the SAT.

Actual Completion Rates

Actual completion times for disabled examinees who took special administrations of the SAT were divided by five to obtain mean section timing. The percentage of disabled students able to complete a section under six timing conditions (35 minutes to 60 minutes in 5-minute increments) is given in Table 10.

There is remarkable consistency across the two data bases in the percentage of disabled examinees who actually completed the test in double the amount of testing time (60 minutes). With the exception of the cassette test for visually impaired examinees, the differences in completion rates between the Packer data and the current data range from 0 to 2 percentage points. This is true despite the fact that completion rates vary widely across and within disability groups: from a low of 41–43 percent for blind students using braille to a high of 88–90 percent for hearing-impaired examinees.

The data are clear in showing that visually impaired individuals taking the braille or cassette versions of the SAT require considerably more time than other groups to complete the test. Table 11 presents a special extension of Table 10 for these two groups. It is clear that blind individuals taking braille and cassette versions of the SAT would be at a distinct disadvantage under a "double-time" rule for special test administrations.

Recommendations for special test administrations are presented in a later section of this report, after consideration of data from other sources. If the recommendations were accepted—or modified and accepted—flagging could cease for individuals tested under the established conditions. However, because most test takers would like extra testing time, strict eligibility guidelines must be established to prevent abuse of the system.

ELIGIBILITY BASED ON LEVEL OF DISABILITY

The major focus of this section is to identify specific levels of disability that might differentiate between those individuals who are eligible for special test administrations and those who are not. If eligibility and test accommodations are tied to the severity of disabilities, how can we best identify levels of disability? A statement of the Admissions Testing Program's current policy on testing individuals with disabilities is presented first, followed by an introduction to the federal perspective and a rationale for the current research. Finally, data from the disability questionnaire data base are presented to investigate varying levels of disability across and within disability groups.

Current Policy

The 1991–92 brochure *Information for Students with Special Needs,* published by the Admissions Testing Program of the College Board, addresses whether students with disabilities are eligible for nonstandard testing. The reply follows:

> You should not necessarily register for nonstandard testing arrangements because you have a disability. If your visual, hearing, and writing abilities are not impaired and if you do not need special accommodations, you should participate in the standard, timed, national testing program. Moreover, an undocumented disability does not qualify you to participate in ATP Services for Handicapped Students.
>
> Only students with current documented disabilities may register for tests administered through ATP Services for Handicapped Students. **To be eligible, you must have on file at your school** either a current Individualized Education Plan (IEP) or two signed documents, based on 1989–92 results,

Table 10. Percent of Disabled Examinees Completing the SAT under Different Timing Conditions

	Current Study *Mean Section Time in Minutes*						*Packer Study*
	35	*40*	*45*	*50*	*55*	*60*	*60*
Hearing							
Regular	31	47	62	74	82	88	90
Learning							
Cassette	12	22	36	51	64	75	77
Large print	20	32	44	55	64	73	71
Regular print	22	36	51	63	73	81	81
Physical							
Large print	6	16	34	47	59	69	68
Regular print	22	35	48	62	68	76	78
Visual							
Braille	4	6	12	21	30	43	41
Cassette	3	10	20	27	35	42	55
Large print	16	31	45	56	67	75	75
Regular print	13	27	45	59	73	79	80
Multiple							
Cassette	8	15	30	45	53	64	—
Large print	11	18	27	41	58	65	—
Regular print	22	30	46	60	69	77	—

obtained from any of the following: physician(s), psychologist(s), child-study team(s), or learning disability specialist(s). Both documents cannot be from the same individual or team.

Your IEP must state the nature and effect of your disability and your need for modified testing arrangements. Signed documents must describe your disability, the tests used in diagnosis, and the need for special testing arrangements. In addition, the signed documents must affirm that your disability meets state guidelines for certification.

The Federal Perspective

With the passage of Section 504 of Title V of the Rehabilitation Act of 1973 (Public Law 93–112), Congress extended civil rights protection to many people with disabilities. The regulations implementing Section 504 (U.S. Department of Health, Education, and Welfare 1977) stated, among other things, that an institution receiving federal funds:

> (b)(3) Shall assure itself that admissions tests are selected and administered so as best to insure that, when a test is administered to an applicant who has a handicap that impairs sensory, manual, or speaking skills, the test results accurately reflect the applicant's aptitude or achievement level or whatever other factor the test purports to measure, rather than reflecting the applicant's impaired sensory, manual, or speaking skills (except where those skills are the factors that the test purports to measure).

That civil rights protection was extended with the passage in 1990 of the Americans with Disabilities Act (ADA). One of the stated purposes of the ADA was to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities. Both the ADA and Section 504 have a broad definition of disability that includes having a record of a disability or being regarded as having a disability. Reasonable accommodations for testing are not specifically defined.

Rationale for the Current Study

Some people with disabilities need no special accommodations for testing, but others do. Some people with disabilities take standard administrations of the SAT, and others take special administrations. Is the level of disability or type of disability responsible for the difference? The purpose of

Table 11. Percent of Visually Impaired Examinees Completing the SAT under Different Timing Conditions

	Current Study *Mean Section Time in Minutes**						*Packer Study*
	65	*70*	*75*	*80*	*85*	*90*	*90*
Visually impaired							
Braille	48	54	61	67	72	76	81
Cassette	49	59	66	71	74	79	85

*Total time divided by five to produce mean section times.

the disability questionnaire was to acquire information on the disability status of, and school practices toward, disabled examinees who had already taken the SAT in either standard or special test administrations. That information could be useful in two ways: It would be a check on the current policy, and it would help establish future eligibility guidelines and comparable timing standards.

The questionnaire considered two aspects of disability level: subgroups within major disability groupings and documentable school practices of accommodation. The kinds of questions designed to identify subgroups within major disability groupings are discussed separately for each group below. Before those results are presented, however, a rationale for eligibility based on school practices should be explained.

Five questions on the disability questionnaire were related to school practices (see questions 1, 2, 3, 4, and 11 in Appendix A). The first question identified whether the test takers had IEPs in elementary, junior high, or high school. The second identified whether they took mathematics and English classes with other disabled students in separate schools, separate classes, or special programs. Question 3 asked whether the students were usually given extra time to produce written materials in class. Question 4 asked the students to identify which of eight possible kinds of accommodations had been made for them when taking English or mathematics tests in school. Finally, question 11 asked whether the disability had occurred *after* the students had completed most or all of their high school programs, in which case there would be no documentation of school accommodation practices.

Although each of the questions was analyzed separately, they were also analyzed collectively, with the responses considered in hierarchical order. All candidates with current IEPs at the time of testing were counted first, followed by all the remaining students who were attending special schools or classes for students with disabilities. Tallied next were those candidates who had had special testing accommodations for high school English or mathematics classes. From the remaining candidates, those who reported acquiring their disabilities after completion of high school were tallied first, followed by those who usually had extra writing time for classroom assignments, followed by those who had had IEPs in elementary or junior high school but not in high school. Finally those candidates were tallied who had indicated nothing other than that they had disabilities—no IEPs, no special schools or classes, no special accommodations for testing, no disability acquired after high school completion, and no extra writing time given in school. The hierarchical structure of the responses was based on the following assumptions:

- Individuals with the most severe disabilities are more likely to have current IEPs. They would certainly be eligible for special testing accommodations. Individuals who attend special schools or classes for students with disabilities are also almost certain to qualify.
- Disabled individuals who receive special testing accommodations in mathematics and/or English classes in high school are likely to be eligible for special accommodations for the SAT.
- Individuals who acquire a disability after completing or almost completing high school (e.g., as a result of an automobile accident or a breakdown in health) might have a definite need for special testing accommodations even though they have had little or no experience with such accommodations and there is no documentation of them having had special testing conditions. Qualification for special testing accommodations is likely. However, if the disability is diagnosed (not acquired) after high school (e.g., a learning disability diagnosed in community college), the disability is probably not as severe as those diagnosed at an earlier age.
- Individuals who report routinely being given extra writing time in high school, and those with IEPs in elementary or junior high school but not in high school, may qualify for special accommodations, depending on how well they can document their current needs and/or the accommodations their schools provide. However, they are not likely, on average, to need as much accommodation as individuals with current (high school) IEPs, those in special schools or classes, or those receiving testing accommodations in high school.
- Individuals who have a long-standing disability, but have no history of needing special accommodations, are not likely to be eligible for special test administrations, depending on the circumstances and the disability.

The likelihood of qualifying for special test accommodations might vary with the kind of documentation that can be supplied on the questions of need and school practice. Table 12 shows the likelihood of qualifying, based on the assumptions described above.

Results across Disability Groups

The percent of disabled respondents (from standard and special test administrations) qualifying for special test accommodations under the assumptions set forth earlier are presented in Table 13. Table 13 contains information on 2,126 respondents (first column), 434 of whom indicated that they had multiple disabilities (last column). The middle five columns of the table—with data on students with hearing impairments, learning disabilities, physical disabilities, visual impairments, and psychological/emotional disabilities—contain information from all respondents with the disability, whether or not they had other disabilities as well. The num-

Table 12. Likelihood of Qualifying for Special Test Accommodations

Qualifier	*Likelihood of Qualifying*
Current IEP in high school	Certain
Special school/class for disabled students	Almost certain
Special accommodations for testing in high school	Likely
Disability acquired after completing high school	Likely
Routinely given extra writing time in high school	Possible
IEP in elementary school or junior high (but not H.S.)	Possible
Disability only, but none of the above	Doubtful

ber of respondents in columns 2–7 exceeds 2,126 because some respondents fit into more than one category.

On average, more than 50 percent of respondents indicated that they had current (high school) IEPs and would therefore be eligible under the current ATP guidelines for special test administrations. Between 11 and 30 percent of respondents (20 percent overall) did not report having IEPs but did report receiving special testing accommodations in mathematics and/or English classes in high school because of their disabilities. Between 4 and 19 percent (on average, 13 percent) reported no school accommodations for their disabilities. It might be expected that the latter group was tested in standard administrations.

Table 14 reduces the data of Table 13 to a more simplified form corresponding to the assumptions on eligibility described earlier.

In a later section of this report, similar data are presented separately for disabled examinees from standard and special test administrations. If the current system is working as expected, individuals from special test administrations should be found at the top of the distribution shown in Table 14, and those from standard administrations at the bottom. Individuals who fall in the middle of the distribution might be those for whom policy decisions need to be made.

Results within Disability Groups

How well did the disability questionnaire identify levels of disability within the four major disability groups? Results are presented for respondents with hearing impairments, learning disabilities, physical disabilities, and visual impairments. A discussion of the success achieved in identifying subgroups of these four categories follows.

Respondents with Hearing Impairments

There were 290 respondents with hearing impairments. When asked about their disabilities, respondents gave the answers presented in Table 15.

When multiply handicapped individuals were removed from the subgroups (to be considered among the separate group of examinees with multiple disabilities), the subgroups contained fewer individuals and included those with only hearing impairments. When grouped according to documentable qualifications for special test administrations of the SAT, differences were observed for those most comfortable with ASL, total communication (T.C.), and English. The percent of hearing-impaired respondents qualifying for special accommodations of the SAT under the assumptions described earlier are presented in Table 16.

Table 13. Percent of Respondents Qualifying for Special Accommodations

Qualifier	*Total*	*Hearing*	*Learning*	*Physical*	*Visual*	*Psychological/ Emotional*	*Multiple*
Current IEP	52	56	60	45	49	49	57
Special school/class	5	5	7	3	4	16	6
Testing accommodations	20	11	15	22	30	13	15
Disability after H.S.	2	1	1	4	1	4	1
Extra writing time	5	5	9	5	2	6	8
Old IEP	3	5	4	2	2	1	2
None of the above	13	17	4	19	13	10	10
No. of respondents*	2,126	290	1,045	564	596	79	434

*The numbers do not sum to the total because some respondents indicated more than one disability.

Table 14. Percent of Disabled Examinees Qualifying for Special Test Administrations

Qualification	*Total*	*Hearing*	*Learning*	*Physical*	*Visual*	*Psychological/ Emotional*	*Multiple*
Certain	57	61	67	48	53	65	63
Likely	22	12	16	26	31	17	16
Possible	8	10	13	7	4	7	10
Doubtful	13	17	4	19	13	10	10

Table 15. Responses from Hearing-Impaired Individuals

	Affirmative Responses	
Description	*No.*	*%*
Have a hearing impairment	290	100
Hear some speech	204	78
Lipread	185	70
Sign	109	42
Most comfortable with:		
ASL	26	10
Total communication	88	34
English	147	56
High school teachers communicate using:		
Spoken English	231	80
English and sign	59	20
Sign only	10	3
An interpreter	33	11
Also have a learning disability	65	22
Also have a physical disability	49	17
Also have a visual disability	43	15

About 95 percent of students who preferred ASL either had current IEPs or were in special schools or classes, but only 43 percent of those who preferred English fell into one of those categories. Of those hearing-impaired individuals whose best communication mode was English, 37 percent did not report having IEPs, going to special schools or classes, or having any special accommodations for testing or writing. One might expect that this group is composed of individuals who took the standard administration of the SAT. None of the ASL subgroup failed to meet the tentative qualifications for special administrations of the SAT. The subgroups identified within the hearing-impaired category appear to be on a fairly reasonable scale even when IEPs alone are considered: percentages drop from 90 percent (ASL), to 76 percent (T.C.), to 42 percent (English).

Respondents with Learning Disabilities

There were 1,045 respondents with learning disabilities. When asked about their disabilities, they gave the responses presented in Table 17. The subcategories of learning disabilities were not mutually exclusive, since the percentages for the four subgroup categories totaled well over 100 percent. After the multiply disabled respondents were removed, 355 examinees identified themselves as having dyslexia, 288 as having perceptual problems, 233 as having attention deficits, and 39 as having dyscalculia. Within the four groups, overlapping categories were common, as presented in Table 18.

Table 16. Percent of Hearing-Impaired Respondents Qualifying for Special Accommodations

		Best Communication Mode		
Qualifier	*Total*	*ASL*	*T.C.*	*Eng.*
Current IEP	57	90	76	42
Special school/class	5	5	0	1
Testing accommodations	11	5	10	7
Disability after H.S.	1	—	—	—
Extra writing time	5	—	—	3
Old IEP	5	—	7	10
None of the above	17	—	7	37
No. of respondents	290	20	41	90

Not all columns add up because of missing data.

Table 17. Responses from Learning-Disabled Individuals

	Affirmative Responses	
Description	*No.*	*%*
Have a learning disability	1,045	100
Dyslexia	457	48
Dyscalculia	61	7
Attention deficit	348	39
Perceptual problem	447	48
Also have a hearing impairment	65	6
Also have a physical disability	157	15
Also have a visual impairment	106	10

No mutually exclusive subgroups of learning-disabled individuals were identified in the questionnaire data to help establish either levels of disability or differential timing standards. However, school-practices qualifiers may help. The percent of subgroups of learning-disabled respondents who have no other disabilities and who qualify for special accommodations for the SAT under the assumptions described earlier are presented in Table 19.

If the school-practices qualifiers are collapsed into the "likelihood of qualifying" categories described earlier, those categories may provide a basis for establishing eligibility and timing standards. The data of Table 19 are collapsed in Table 20.

Respondents with Physical Disabilities

There were 564 respondents with physical disabilities. When asked about their disabilities, they gave the responses indicated in Table 21. Respondents in the last three categories in Table 21 were removed from the subgroup analysis for physical disabilities and moved to the category of multiple disabilities. The remaining respondents with physical disabilities constitute a most diverse group of test takers. The questionnaire asked respondents to identify which of 15 kinds of disabilities they had: cerebral palsy, spina bifida,

Table 18. Learning-Disabled Respondents in More than One Subgroup

	Dyslexia	*Dyscalculia*	*Attention Deficit*	*Perceptual Problem*
Dyslexia	—	21	89	118
Dyscalculia	21	—	18	25
Attention deficit	89	18	—	107
Perceptual problem	118	25	107	—

Table 19. Percent of Learning-Disabled Respondents Qualifying for Special Accommodations

Qualifier	*Total*	*Dyslexia*	*Dyscalculia*	*Attention Deficit*	*Perceptual Problem*
Current IEP	60	57	67	63	66
Special school/class	7	6	3	5	4
Testing accommodations	15	16	10	15	11
Disability after H.S.	1	1	—	3	—
Extra writing time	9	10	—	6	11
Old IEP	4	6	20	4	5
None of the above	4	4	—	4	3
No. of respondents	1,045	355	39	233	288

Table 20. Percentage of Learning-Disabled Subgroups in Simplified Eligibility Categories

Qualification	*Total*	*Dyslexia*	*Dyscalculia*	*Attention Deficit*	*Perceptual Problem*
Certain	67	63	70	68	70
Likely	16	17	10	18	11
Possible	13	16	20	10	16
Doubtful	4	4	—	4	3

post polio, muscular dystrophy, multiple sclerosis, quadriplegia, paraplegia, brain injury, epilepsy, diabetes, Tourette's syndrome, heart disease, asthma, arthritis, and other. The largest number of respondents marked "other." Because of the small numbers of individuals in the 15 categories, only data from the 8 largest groups are reported in this section. The percentages of physically disabled respondents who qualified for special administrations of the SAT under the assumptions discussed earlier are presented in Table 22. Fairly large percentages of physically disabled respondents appear not to qualify for special accommodations under the assumptions.

Table 21. Responses from Physically Disabled Individuals

	Affirmative Responses	
Description	*No.*	*%*
Have a physical disability	564	100
Cerebral palsy	115	20
Spina bifida	17	3
Post polio	4	<1
Muscular dystrophy	29	5
Multiple sclerosis	3	<1
Quadriplegia	48	9
Paraplegia	24	4
Brain injury	68	12
Epilepsy	41	7
Diabetes	16	3
Tourette's syndrome	7	1
Heart disease	17	3
Asthma	70	12
Arthritis	36	6
Other	186	33
Also have a hearing impairment	49	9
Also have a learning disability	157	28
Also have a visual impairment	100	18

Respondents with Visual Impairments

There were 596 respondents with visual disabilities. When asked about their disabilities, they gave the responses presented in Table 23. The question—"Which best describes you?"—produced mutually exclusive categories that effectively ordered the severity of disability of visually impaired respondents along the continuum of blindness. Respondents with additional disabilities were removed to the category of multiple disabilities. The percent of visually impaired respondents who qualified for special accommodations under the school-practices assumptions described earlier is presented in Table 24.

All the students who were totally blind had current IEPs, were in special schools or classes, or had received special testing accommodations in English and mathematics classes. Just 89 percent of legally blind examinees and only 69 percent of those with a lesser degree of impairment fit into the same three categories. One might expect that visually impaired individuals who took standard administrations of the SAT fell primarily in the least severe category, where 29 percent of respondents would not qualify for special test accommodations under the school-practices assumptions.

Discussion

The data from the disability questionnaire were subjected to scrutiny. The questionnaire had been sent to disabled individuals from standard and special test administrations selected so as to assure a broad range of levels of disability. That goal was certainly accomplished. The data base contained respondents across all major disability categories and included individuals with single disabilities as well as those with multiple disabilities.

Within disability groups, success at identifying subgroups was mixed. Visually impaired respondents fell

Table 22. Percent of Physically Disabled Respondents Qualifying for Special Accommodations

Qualifier	*Total*	*Cerebral Palsy*	*Muscular Dystrophy*	*Quadriplegia*	*Paraplegia*	*Brain Injury*	*Epilepsy*	*Arthritis*	*Other*
Current IEP	45	51	38	46	21	30	25	30	23
Special school/class	3	—	4	3	—	4	4	10	4
Testing accommodations	22	26	46	38	11	44	29	10	23
Disability after H.S.	4	—	—	10	26	—	8	10	5
Extra writing time	5	1	—	—	5	—	—	—	2
Old IEP	2	6	4	—	—	—	—	—	3
None of the above	19	15	8	3	37	22	33	40	39
No. of respondents	564	72	24	39	19	23	24	20	92

into mutually exclusive groups based on degree of blindness. Hearing-impaired individuals fell into mutually exclusive groups related to facility with English or sign. Physically disabled individuals fell into many groups based on the kind of disability rather than the severity. Learning-disabled individuals, however, could not be successfully divided into subgroups. This was not surprising, since problems with defining learning disabilities still exist (Willingham et al. 1988, p. 22).

The school-practices data appeared to be successful insofar as they indicated a fairly wide variety of accommodations made for individuals with disabilities. School practices can be easily documented and are worth considering as eligibility criteria for special test accommodations. Simply having a disability does not qualify an individual for a special test administration, as the current policy indicates. Nothing presented in this section has yet answered the question of who is eligible for special test administrations. How can the Admissions Testing Program establish a policy that assures special testing to those who genuinely qualify, while preventing abuse from those who do not? How well has the present policy worked? Is a different policy necessary? The school-practices data can certainly cast light on these areas of inquiry. In the next section, questionnaire data that were matched with timing and history file data are used to investigate similarities and differences between disabled respondents who took standard and special test administrations.

Table 23. Responses from Visually Impaired Individuals

	Affirmative Responses	
Description	*No.*	*%*
Have a visual disability	596	100
Which best describes you?		
Totally blind	58	11
Legally but not totally blind	278	52
Visually impaired but not legally blind	201	37
Usually read books:		
In regular print	417	70
In large print	252	42
In braille	80	13
On tape	240	40
With a reader	135	23
Also have a hearing impairment	43	7
Also have a learning disability	106	18
Also have a physical disability	100	17

DISABLED EXAMINEES FROM STANDARD AND SPECIAL TEST ADMINISTRATIONS

In this section, differences between respondents from standard and special test administrations are discussed, first with regard to SAT scores and then with regard to eligibility based on school-practices guidelines. One question addressed in this section is how well the current policy works in providing special accommodations to those who need them.

Sample Size and SAT Performance

When the questionnaire data base was matched with the timing and history file data bases, there were 1,104 special test administration students with timing data, SAT scores, and questionnaire responses and an additional 145 examinees (many from Plan B) with complete records except for timing data. In addition there were 397 students with SAT scores from regular test administrations who responded to the questionnaire. The number of examinees in each of the major disability groups (all who reported that disability) and the number who reported multiple disabilities, together with their mean SAT-verbal and SAT-mathematical scores, are presented in Table 25. (The numbers in the special admin-

Table 24. Percent of Visually Impaired Respondents Qualifying for Special Accommodations

Qualifier	*Total*	*Totally Blind*	*Legally Blind*	*Other*
Current IEP	49	80	50	28
Special school/class	4	—	1	5
Testing accommodations	30	20	38	36
Disability after H.S.	1	—	—	—
Extra writing time	2	—	—	—
Old IEP	2	—	2	3
None of the above	13	—	9	29
No. of respondents	596	45	235	115

Not all columns add up because of missing data.

Table 25. SAT Scores of Respondents from Standard and Special Administrations

	Standard Administrations			*Special Administrations*		
Disability	*No.*	*Mean SAT-V*	*Mean SAT-M*	*No.*	*Mean SAT-V*	*Mean SAT-M*
Hearing	77	396	427	133	327	389
Learning	132	343	378	651	379	409
Physical	66	408	425	291	420	450
Visual	42	389	420	420	453	476
Emotional	18	362	388	49	368	404
Multiple	62	372	395	266	391	417
Total	397	385	414	1,249	405	438

istrations column of Table 25 do not sum to the total because individuals were tallied in several rows if they indicated multiple disabilities.)

There are two observations of interest. First, mean SAT scores from special test administrations were, on average, higher than scores from standard test administrations: 20 points higher on the SAT-verbal and 24 points higher on the SAT-mathematical. Across all disability groups, except the hearing-impaired group, mean SAT scores were consistently higher for examinees from special test administrations. This is not surprising, since earlier studies had discovered some overprediction of college performance associated with SAT scores from special test administrations (Braun, Ragosta, and Kaplan 1986; Willingham et al. 1988). Examinees who took both standard and special test administrations were also found to exhibit increasing gains associated with the extra time allowed in special administrations (Centra 1986). On the other hand, those disabled students who took standard administrations of the SAT might have been eligible for—and might have increased their scores in—special test administrations.

A second point of interest is the rank order of mean SAT scores across the four major disability groups. The order of mean SAT scores from special administrations matches what has been found in earlier studies: Visually impaired and physically disabled examinees earned higher mean scores than learning-disabled students, who earned higher mean scores than hearing-impaired test takers. Among examinees from standard test administrations, however, hearing-impaired test takers earned mean scores similar to those of visually impaired and physically disabled students, and learning-disabled individuals earned the lowest mean scores.

The numbers of examinees in subgroups of the four major disability categories and their mean SAT scores are presented in Table 26. Within the standard and special test administrations, the hearing-impaired subgroups looked quite different from one another. The standard group contained no individuals most comfortable with American Sign Language and consisted predominantly of those most comfortable with English. Most of the special group, however, was comfortable with sign (ASL or total communication) and had markedly lower mean SAT-verbal scores.

Every subgroup of the learning-disabled sample was represented in both the standard and the special test administration in roughly the same proportions. Although there were more learning-disabled examinees from special than from standard administrations (a result of our sampling procedures), about 40 percent of both groups reported having dyslexia and about 4 percent dyscalculia. Despite the small numbers, students with dyscalculia did appear to be a distinctively different group, since their mean SAT-mathematical scores were consistently lower than their mean SAT-verbal scores.

In general, representatives of the various subgroups of physically disabled examinees were tested in both standard and special administrations. Did those with lesser degrees of disability test in standard administrations? The data of Table 26 do not answer that question; however, the information on people with quadriplegia and paraplegia show a tendency in that direction. Most examinees with paraplegia tested in standard administrations, and most of those with quadriplegia tested in special administrations.

The distributions of visually impaired individuals within standard and special test administrations looked very different. There were no totally blind individuals in the standard administration, which consisted predominantly of examinees who were less than legally blind. The special administration sample contained all the totally blind examinees and consisted primarily of examinees who were legally blind.

There is some evidence in the current data that more severely impaired individuals tended to test in special administrations. Next a comparison will be made of the school practices that were in effect for examinees who were tested in standard and special administrations. Do students with IEPs consistently take their tests with special accommodations? Do school practices differentiate between those who take standard and special administrations?

School Practices and Special Test Administrations

In this section, we look at the school-practices distributions across disability categories and within the four major categories and discuss the implications of the findings.

Table 26. Subgroup Sample Sizes and Mean SAT Scores

	Standard Administrations			*Special Administrations*		
Disability	*No.*	*Mean SAT-V*	*Mean SAT-M*	*No.*	*Mean SAT-V*	*Mean SAT-M*
Hearing						
ASL	0	—	—	10	279	339
Total communication	7	361	392	20	274	340
English	45	409	442	26	320	439
Learning						
Dyslexia	45	351	408	220	393	434
Dyscalculia	5	410	350	21	400	374
Attention deficit	25	326	345	145	379	395
Perceptual problem	38	342	380	175	375	397
Physical						
Cerebral palsy	16	432	440	44	390	410
Spina bifida	10	422	435	0	—	—
Post polio	2	325	450	1	390	400
Muscular dystrophy	6	395	392	13	518	545
Multiple sclerosis	1	350	290	2	440	490
Quadriplegia	2	400	330	31	472	519
Paraplegia	16	439	479	2	410	465
Brain injury	3	300	357	16	403	462
Epilepsy	9	389	436	10	416	502
Diabetes	4	383	383	1	280	230
Tourette's	0	—	—	1	430	490
Heart disease	2	365	290	1	400	420
Asthma	8	325	385	5	352	454
Arthritis	11	415	415	7	549	501
Other	47	444	449	33	439	485
Visual						
Totally blind	0	—	—	35	515	461
Legally blind	8	419	465	175	459	491
< legally blind	17	376	423	78	476	529

Across Disability Categories

The percentages of disabled examinees from standard and special test administrations who tentatively qualified for special accommodations based on previous school practices are presented in Table 27. Individuals from special administrations were predominantly those with current IEPs (58 percent of the total). Presumably, in order to have been eligible, the remaining examinees from special administrations either had IEPs but did not respond affirmatively to the question, or had two pieces of documentation that met the eligibility guidelines. Almost a quarter of the examinees from special administrations reported having had special testing accommodations for their mathematics and/or English classes in high school, and only 7 percent reported no special school practices and no disability acquired after high school completion.

Although the largest percentage of disabled examinees from standard administrations of the SAT responded negatively to all the school-practices questions (36 percent), a surprising 26 percent reported having current IEPs, making them eligible for special accommodations. An additional 13 percent reported special testing accommodations in mathematics and/or English classes in high school. Clearly there is considerable overlap among those disabled students who take standard and special administrations of the SAT.

Across disability groups, examinees from special test administrations do tend to cluster in the upper part of the distribution as expected, but test takers from standard administrations also show considerable clustering toward the top. In Table 28, a simplified eligibility distribution based on school practices is presented (the assumptions for which were described earlier). In Table 28, the differences between the standard and special administration groups can clearly be seen for all categories of disability, except perhaps the learning-disabled category. Learning-disabled students from standard and special administrations looked very much alike even in the doubtful end of the distribution, where there was only a two percentage point difference (6 percent versus 4 percent). For all other disability categories the differences at the lowest end of the distribution were much greater.

These results present problems warranting further discussion. However, before such a discussion we need to look at similar data within the four major disability categories.

Within Disability Categories

Data within the four major disability categories tended to show discrete levels of disability for individuals with sensory impairments, discrete subcategories among physically disabled test takers, and very poorly differentiated

Table 27. Percent of Disabled Examinees from Standard and Special Test Administrations Tentatively Qualifying for Special Accommodations

	Total	*Hearing*	*Learning*	*Physical*	*Visual*	*Psychological/ Emotional*	*Multiple*
Standard							
Current IEP	26	25	43	20	17	18	28
Special school/class	7	3	9	4	12	18	8
Test accommodations	13	8	15	15	20	18	16
Disability after H.S.	3	1	1	6	2	9	1
Extra writing time	8	10	17	6	3	9	16
Old IEP	6	8	9	4	7	5	5
None of the above	36	45	6	45	39	23	25
No. of respondents	466	89	161	187	59	22	75
Special							
Current IEP	58	70	62	56	51	61	63
Special school/class	4	7	7	2	3	12	6
Test accommodations	23	12	15	27	33	12	16
Disability after H.S.	1	1	1	3	—	2	1
Extra writing time	5	3	8	4	2	6	7
Old IEP	2	2	3	2	1	—	1
None of the above	7	5	4	6	10	6	6
No. of respondents	1,249	133	651	291	420	61	266

Table 28. Percent of Disabled Examinees from Standard and Special Test Administrations Tentatively Qualifying for Special Accommodations, by Simplified Eligibility Categories

	*Total**	*Hearing*	*Learning*	*Physical*	*Visual*	*Emotional*	*Multiple*
Standard							
Certain	33	28	52	24	29	36	36
Likely	16	9	16	21	22	27	17
Possible	14	18	26	10	10	14	21
Doubtful	36	45	6	45	39	23	25
Special							
Certain	62	77	69	58	54	73	69
Likely	24	13	16	30	33	14	17
Possible	7	5	11	6	3	6	8
Doubtful	7	5	4	6	10	6	6

*Represents the percentage of all categories.

subgroups of learning-disabled examinees. Each of these categories is revisited here to examine the results of the eligibility distribution based on school practices.

Hearing-Impaired Examinees. Table 29 presents the simplified eligibility distribution for three subgroups of hearing-impaired examinees: those most comfortable with American Sign Language, total communication, or English.

The eligibility distribution within subgroups of the hearing-impaired category is handicapped somewhat by low numbers, although the data appear to be consistent with expectations. Deaf individuals who reported communicating best in ASL were consistent in having IEPs; the three individuals who took standard administrations were certainly eligible for special accommodations. At the "English" end of the scale, 60 percent of those from standard administrations reported no special school practices associated with their disabilities, and 77 percent of those from special administrations reported having IEPs. Those figures confirm expectations. However, the 18 percent of those preferring English who were clearly eligible for special accommodations but who took standard administrations are a matter for concern, together with the additional 22 percent who might have qualified. Also a matter of some concern are the 15 percent from special administrations who reported no school practices associated with their disabilities.

Table 29. Percent of Hearing-Impaired Examinees from Standard and Special Administrations Tentatively Qualifying for Special Accommodations

	Best Communication Mode					
	ASL		*T.C.*		*English*	
	Stand.	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*
Qualification						
Certain	100	100	33	90	18	77
Likely	—	—	11	5	7	4
Possible	—	—	22	5	15	4
Doubtful	—	—	33	—	60	15
No. of respondents	3	10	9	20	45	26

Table 30. Percent of Learning-Disabled Examinees from Standard and Special Administrations Tentatively Qualifying for Special Accommodations

	Dyslexia		*Dyscalculia*		*Att. Deficit*		*Percept. Prob.*	
	Stand.	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*
Qualification								
Certain	44	63	67	76	77	67	63	72
Likely	17	19	—	14	14	19	14	11
Possible	30	14	33	10	6	10	20	13
Doubtful	9	4	—	—	3	4	2	4
No. of respondents	53	220	6	21	35	145	49	175

Learning-Disabled Examinees. Table 30 presents the eligibility distribution for the four subgroups of learning-disabled examinees: those with dyslexia, dyscalculia, attention deficit, or perceptual problems. It was established earlier that the subgroups within the learning-disability category were not mutually exclusive, nor did they seem to differ much from one another (except for the dyscalculia group, which did exhibit special problems in mathematics according to SAT scores). The current data do not show much differentiation between those who tested in standard versus special administrations. The largest percentage in every distribution for both standard and special administrations of the SAT was examinees with IEPs, who clearly qualified for special accommodations. The current policy on special administrations appears to be breaking down in actual practice. Some learning-disabled individuals may elect not to test in special administrations, but the large percentages of eligible candidates who actually took standard administrations is a matter for concern. Who is making the decision to test in standard or special administrations? Are students and their parents making those decisions, or are schools making them? Are students and parents provided with good information and counseling? Are schools allowing learning-disabled students to test with nondisabled students because doing so creates less of a problem for test administrators? Answers to these questions cannot be found in the current data.

Physically Disabled Examinees. Table 31 presents the eligibility distribution for eight subgroups within the category of physically disabled examinees: those with cerebral palsy, muscular dystrophy, quadriplegia, paraplegia, brain injury, epilepsy, arthritis, and other physical disabilities. The numbers within the subgroups are quite small and present some problems on that account. The preponderance of special administration examinees in each subgroup had IEPs and/or were likely to qualify for special accommodations; however, a small percentage were in the "doubtful" end of the distribution. Fairly large percentages (ranging from 15 to 42 percent) of individuals from standard administrations were eligible for special accommodations even under the most stringent guidelines.

Visually Impaired Examinees. Table 32 presents the eligibility distribution for three subgroups of the visually impaired category: those who were totally blind, legally blind, or less than legally blind. As in many of the other categories, concern about the visually impaired subgroups centers on those individuals from standard administrations whose eligibility based on school practices was high. About 72 percent of legally blind candidates and 47 percent of those with lesser visual impairments would certainly or likely have qualified for special accommodations but took standard administrations of the SAT. Additional concern surrounds the 6 percent of legally blind students and 27 percent of those with lesser impairments who took special administrations of the SAT although they reported no indication of any school accommodations for their disabilities.

Discussion

We have seen two consistent problems across disability groups: eligible students who have taken standard administrations of the SAT, and examinees from special administra-

Table 31. Percent of Physically Disabled Examinees from Standard and Special Administrations Tentatively Qualifying for Special Accommodations

	Cerebral Palsy		*Muscular Dystrophy*		*Quadriplegia*		*Paraplegia*		*Brain Injury*		*Epilepsy*		*Arthritis*		*Other*	
	Stand.	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*
Qualification																
Certain	16	68	38	46	25	48	18	50	—	38	30	30	42	29	15	33
Likely	32	20	25	54	50	52	35	50	—	56	10	60	8	43	21	45
Possible	10	7	12	—	—	—	6	—	—	—	—	—	—	—	6	6
Doubtful	42	5	25	—	25	—	41	—	100	6	60	10	50	28	58	15
No. of respondents	19	44	8	13	4	31	17	2	3	16	10	10	12	7	53	33

Table 32. Percent of Visually Impaired Examinees from Standard and Special Administrations Tentatively Qualifying for Special Accommodations

	Totally Blind		*Legally Blind*		*Other Visual*	
	Stand.	*Spec.*	*Stand.*	*Spec.*	*Stand.*	*Spec.*
Qualification						
Certain	50	77	29	52	33	30
Likely	50	23	43	40	14	42
Possible	—	—	—	2	10	1
Doubtful	—	—	28	6	43	27
No. of respondents	2	35	14	175	21	78

tions who do not seem to be eligible according to school-practices criteria.

Eligible Students in Standard Administrations

Students with disabilities are encouraged to test in standard administrations of the SAT if their visual, hearing, and writing abilities are not impaired and if they need no special accommodations. It is possible that all disabled students with IEPs who were tested in standard administrations of the SAT elected to take their SATs that way. It is also possible that many of those students were unaware of their eligibility for special test accommodations. This study cannot differentiate between the two possibilities, but experience has shown that disabled students are sometimes uninformed about special test accommodations (Ragosta 1980). Authors of the *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education 1985) were so concerned about the problem that they wrote Standard 14.7 as a primary directive:

> Those who use tests and those who interact professionally with potential test takers with handicapping conditions (e.g., high school guidance counselors) should (a) possess the information necessary to make an appropriate selection of alternate measures, (b) have current information regarding the availability of modified forms of the test in question, (c) inform individuals with handicapping conditions, when appropriate, about the existence of modified forms, and (d) make these forms available to test takers when appropriate and feasible.

Reasonable accommodations are supposed to give disabled students a comparable and equitable opportunity to perform. If qualified disabled students are not given that opportunity, the testing procedures are not equitable. All students with disabilities who meet eligibility requirements should have the opportunity to test with special accommodations.

Special Administrations without School Accommodations

Presumably those disabled students without IEPs who tested with special accommodations were eligible to do so because they had provided two pieces of documentation that met the ATP's eligibility requirements. Providing such documentation through private means—outside of the school system's regular identification practices—is both time-consuming and costly. Affluent families are more likely to be able to provide such documentation than poor families. Therefore the cost factor makes these eligibility requirements inequitable. In fact, earlier research (Ragosta 1987) has shown that over a four-year period the average family income of learning-disabled students from special test administrations exceeded that of nondisabled students from standard administrations by 40 percent or more. Using school practices to define eligibility may also have its inequities, but it appears to be more equitable. The differential cost factor is lessened or removed, and poorer individuals are as likely to qualify as wealthier ones. Practically speaking, individuals who have the proper documentation of accommodations in their educational programs can reasonably expect to have similar accommodations for their SAT administrations.

An approach to eligibility based on lifestyle accommodations developed for and by disabled individuals in the educational system seems consistent with fair and equitable practice. For example, blind and visually impaired individuals (for whom the first test accommodations were developed) have had educational experience in accessing written material through braille, cassette tape, large print, or the use of a reader. New technology also makes the written word accessible through the use of computerized reading machines. All these represent alternative lifestyle accommodations for visually impaired people dealing with the printed word. For years, totally blind individuals have been able to have their textbooks in braille or on tape and take their SATs in braille or on cassette, thus making their transition from high school to college a reasonably smooth procedure, comparable to that of nondisabled students.

Testing programs are essentially responsible for providing disabled individuals with accommodations that reduce or eliminate extraneous sources of variance: factors that negatively influence performance on the test but *not* on the criterion measured (Educational Testing Service 1990, pp. 25–26):

> For post-secondary admissions tests, a wide variety of accommodations has generally been offered. These include extra time and rest periods, the use of an amanuensis or a reader, and such format translations as braille, cassette, and large type. Each of these accommodations is designed to minimize a particular type of irrelevant influence and, to one degree or another, each accommodation can be found in post-secondary programs. Hence, the use of these accommodations in post-secondary admissions testing is justified.

Clearly a smooth transition process should allow disabled individuals to be tested using those reasonable lifestyle accommodations that were developed and routinely used in their elementary and secondary education and will be available to them in their postsecondary education. Consistency in educational accommodations provided to disabled indi-

viduals makes their testing process comparable to that for nondisabled students.

Before any further discussion of eligibility guidelines, information on test timing is investigated as a function of eligibility based on school practices.

ELIGIBILITY FOR EXTRAORDINARY TIMING

Data indicated that somewhere between time and a half and double time for special test administrations would allow hearing-impaired, learning-disabled, physically disabled, and most visually impaired examinees to complete the SAT at rates reasonably comparable to those of nondisabled examinees. Visually impaired examinees who used braille or cassette tests, however, appeared to require between double and triple time. In previous sections, subgroups of disabled students who had responded to a disability and school-practices questionnaire were examined with regard to eligibility for special test administrations. This section examines the timing data of those subgroups to ensure that there are no identifiable subgroups of disabled individuals whose data differ in any major way from the timing data of the total groups examined earlier. This data base is much smaller than the earlier one, but it has the advantage of additional information on subgroups within each disability category and information on eligibility based on school practices. We first examine data across disability groups to see how this sample differs from the earlier one, and then we look within the four major disability groups.

Across Disability Groups

The mean number of minutes used by disabled individuals in this sample to complete the SAT—and the percent completed at time and a half and double time—is presented in Table 33, together with data from Packer's (1987) study.

Hearing-impaired individuals in this sample took more time to complete their SATs than the hearing-impaired population in Packer's study, largely because the current sample included hearing-impaired people with other disabilities (including blindness). The significant difference across test editions—braille, cassette, large print, and regular print—came about because of those examinees with additional disabilities. Mean times to completion across the test versions were 316 minutes for braille, 245 for cassette, 296 for large print, and 231 for the majority of the sample who took regular print. In the earlier study, students with multiple disabilities were removed from the sample.

The learning-disabled samples in the two studies look quite similar, and there were no significant differences across test editions in current data. The same held true for physically disabled individuals. Data within each category, however, might disclose timing differences.

Among visually impaired examinees, the significant differences across test editions and the concomitant differences in mean timing were expected, since the earlier study had already shown that braille and cassette tape users required considerably more testing time.

Table 33. Mean Minutes to Completion and Percent of Disabled Students Completed in Time and a Half and Double Time

		Minutes to Complete		*% Completed*	
	Number	*Mean*	*SD*	*1½*	*2*
Hearing					
Certain	96	241*	69	48	81
Likely	13	263	69	38	62
Possible	6	226	66	67	83
Doubtful	6	253	60	50	83
[Packer's study	639	217	77	62	88]
Learning					
Certain	374	257	83	39	75
Likely	80	274	92	36	80
Possible	52	278	80	33	67
Doubtful	21	263	77	33	76
[Packer's study	13,786	239–262	85–100	36–51	73–81]
Physical					
Certain	165	277	104	35	67
Likely	80	258	81	46	73
Possible	17	271	86	35	71
Doubtful	14	315	133	21	64
[Packer's study	784	250–293	88–112	34–48	69–76]
Visual					
Certain	223	298*	111	31	61
Likely	134	264*	88	40	78
Possible	12	278	90	33	75
Doubtful	39	245	97	46	87
[Packer's study	1,597	251–363	85–135	12–45	42–79]
Multiple					
Certain	167	269	89	37	70
Likely	39	270	88	44	72
Possible	18	278	78	33	72
Doubtful	12	264	88	33	67
[Packer's study	374	250–293	84–114	27–46	64–77]

*Significant differences across test editions.

The multiply disabled students in the current sample fell well within the range of the earlier sample. Although there was no significant difference across test editions (probability of .13), the eight multiply disabled individuals who used braille had a mean testing time of 345 minutes.

Within Disability Groups

Although comparable timing for the total group of disabled test takers and for the total number of examinees in each disability category generally fell between time and a half and double time, earlier data have already shown that visually impaired examinees using braille or cassette tests required more testing time. In this section of the report we look within the four major disability categories for subgroups of disabled individuals who may require additional extra time.

Subgroups of Hearing-Impaired Examinees

Table 34 presents eligibility and timing data for three subgroups of hearing-impaired examinees: those most com-

Table 34. Hearing Impaired: Mean Minutes to Completion and Percent Completed in Time and a Half and Double Time

		Minutes to Complete		% Completed	
	Number	Mean	SD	1½	2
ASL					
Certain	10	231	50	40	90
Likely	—	—	—	—	—
Possible	—	—	—	—	—
Doubtful	—	—	—	—	—
Total Comm.					
Certain	18	221	45	61	89
Likely	1	172	—	100	100
Possible	1	227	—	0	100
Doubtful	—	—	—	—	—
English					
Certain	16	219	65	69	88
Likely	1	340	—	0	0
Possible	—	—	—	—	—
Doubtful	4	215	24	75	100

fortable with American Sign Language, total communication, or English. Except for a single "likely" individual most comfortable with English, the data showed that time and a half was adequate for persons most comfortable with English or total communication. For those most comfortable with ASL, between time and a half and double time was needed, presumably for translating between sign and print. The numbers of deaf and hard-of-hearing examinees were small, however, and earlier research has shown that timing is not the major issue for deaf students (Willingham et al. 1988). Research was recommended to determine whether tests available in sign might be more appropriate for deaf and hard-of-hearing examinees most fluent in sign. Nothing in the current data would lessen the need for such research.

Subgroups of Learning-Disabled Examinees

Table 35 presents eligibility and timing data for four poorly differentiated subgroups of learning-disabled examinees: those with dyslexia, dyscalculia, attention deficit, and perceptual problems. Those who are certainly qualified appear to take less mean time to complete the test than those few whose qualification is doubtful. Most subgroups appear to need more than time and a half but less than double time to complete their SATs at a rate equivalent to that for nondisabled examinees.

Subgroups of Physically Disabled Examinees

Table 36 presents eligibility and timing data on several subcategories of physically disabled examinees: those with cerebral palsy, muscular dystrophy, quadriplegia, brain injury, epilepsy, arthritis, and other physical disabilities. The physically disabled category contained individuals with the most diverse kinds of disabilities. The numbers of examinees in each of the subcategories were very small. There were students in some categories with two little data to report. One

Table 35. Learning Disabled: Mean Minutes to Completion and Percent Completed in Time and a Half and Double Time

		Minutes to Complete		% Completed	
	Number	Mean	SD	1½	2
Dyslexia					
Certain	118	263	67	30	75
Likely	31	294	99	13	74
Possible	22	268	72	36	73
Doubtful	8	296	68	13	75
Dyscalculia					
Certain	16	265	102	31	75
Likely	2	259	12	0	100
Possible	2	266	66	50	50
Doubtful	—	—	—	—	—
Attention Deficit					
Certain	81	247	82	43	80
Likely	17	263	75	41	88
Possible	11	327	79	9	36
Doubtful	6	270	68	50	67
Perceptual Problem					
Certain	106	257	90	40	74
Likely	12	275	88	33	83
Possible	14	297	85	14	57
Doubtful	7	296	74	14	71

"likely" candidate with Tourette's syndrome took 355 minutes to complete the test, and a "certain" examinee with heart disease took 411 minutes. On the other hand, a "certain" post polio examinee took 183 minutes, and a "likely" student with paraplegia took 215 minutes. In general, however, students with physical disabilities, like most of the disabled individuals discussed thus far, took between time and a half and double time to complete the test at a rate comparable to that for nondisabled candidates.

Subgroups of Visually Impaired Examinees

Table 37 presents eligibility and timing data for three subgroups of visually impaired examinees: those who were totally blind, legally but not totally blind, or visually impaired but not legally blind. The amount of extra time needed by blind and visually impaired examinees depended on the accommodations required to make the test accessible. Braille and cassette editions of the SAT for blind examinees required much more time than the large-print or regular-print editions for those with enough sight to read print. Table 38 breaks out the mean time by version of the test for those legally blind individuals who were certain to be eligible for accommodations. The data reinforce what was learned from the timing data alone: Blind students who do not read print need considerably more time than those who can. Note that of the 90 examinees who described themselves as legally blind and having an IEP or attending a school for the blind, 26 were not print readers (at least under standardized testing conditions). The severity of the disability when described in legal terms did not differentiate

Table 36. Physically Disabled: Mean Minutes to Completion and Percent Completed in Time and a Half and Double Time

		Minutes to Complete		% Completed	
	Number	Mean	SD	1½	2
Cerebral palsy					
Certain	30	269	100	43	63
Likely	9	331	112	22	44
Possible	3	291	109	33	66
Doubtful	1	620	—	0	0
Muscular dystrophy					
Certain	6	309	61	17	50
Likely	7	254	60	43	71
Possible	—	—	—	—	—
Doubtful	—	—	—	—	—
Quadriplegia					
Certain	14	280	164	36	79
Likely	16	240	69	50	81
Possible	—	—	—	—	—
Doubtful	—	—	—	—	—
Brain injury					
Certain	6	339	182	16	50
Likely	9	271	70	33	67
Possible	—	—	—	—	—
Doubtful	1	291	—	0	100
Epilepsy					
Certain	3	288	29	0	67
Likely	6	280	69	33	50
Possible	—	—	—	—	—
Doubtful	1	291	—	0	100
Arthritis					
Certain	2	309	54	0	50
Likely	3	218	43	67	100
Possible	—	—	—	—	—
Doubtful	2	276	32	0	50
Other					
Certain	11	245	55	46	73
Likely	14	218	54	64	93
Possible	2	279	107	50	50
Doubtful	5	289	150	40	80

between print users and nonprint users. Educational or lifestyle accommodations required to access the printed word determined the amount of time needed.

Totally blind examinees and those legally blind examineees who take braille and cassette tests need more than double time to assure comparable completion rates. Legally blind individuals who use large print and examinees who are less than legally blind seem to need between time and a half and double time.

Timing data were used in an attempt to identify additional groups of disabled persons who might need extraordinary amounts of testing time. The only group identified consisted of deaf-blind individuals whose blindness was the major disabling condition and who required braille, cassette, or large-print accommodations and timing that was more consistent with blind individuals than deaf individuals. Except for isolated individuals, no additional disability groups needing more than time and a half or double time were identified.

Table 37. Visually Impaired: Mean Minutes to Completion and Percent Completed in Time and a Half through Triple Time

		Minutes to Complete		% Completed			
	Number	Mean	SD	1½	2	2½	3
Total blindness							
Certain	26	318	126	15	65	81	
Likely	8	377	103	12	25	38	75
Possible	—	—	—	—	—		
Doubtful	—	—	—	—	—		
Legal blindness							
Certain	90	306	116	34	54	76	
Likely	69	243	83	52	84		
Possible	4	273	96	50	75		
Doubtful	10	232	35	50	100		
< Legal blindness							
Certain	22	289	137	41	64		
Likely	32	257	51	28	81		
Possible	1	360	—	0	0		
Doubtful	21	241	117	52	91		

Subgroups of Examinees Not Previously Identified

Two groups of examinees have not yet been discussed: those with emotional or psychological disabilities and those who take the SAT with a reader or a reader/amanuensis.

Examinees with Emotional/Psychological Disabilities. In the earlier timing data, there was no mention of test takers with psychological or emotional disabilities. The current data base identified a few such examinees whose eligibility and timing data are presented in Table 39. In general, time and a half or double time might seem appropriate, especially given the need to minimize stress for this group of examinees.

Examinees Who Test with a Reader. No data existed in any of the data bases described thus far that could be used to assess the timing for reader-administered tests. A small pilot study was undertaken to collect data. Of more than 40 nondisabled students who had taken either a mathematical or verbal section of the SAT under standard conditions, 19 subsequently took an analogous section under nonstandard conditions with a reader. Students reported the reader-administered testing to be much harder than testing in the standard way, but they did not take a great deal of extra time. Mean time to complete the verbal section was 41 min-

Table 38. Legally Blind Examinees Certain to Qualify: Mean Minutes to Completion and Percent Completed in Time and a Half through Triple Time

			% Completed			
	No.	Mean Minutes to Complete	1½	2	2½	3
Braille	13	409	8	31	46	54
Cassette	13	344	15	39	54	77
Large print	61	275	44	64	87	92

Table 39. Emotionally Disabled: Mean Minutes to Completion and Percent Completed in Time and a Half and Double Time

		Minutes to Complete		*% Completed*	
Qualification	*Number*	*Mean*	*SD*	*1½*	*2*
Certain	28	220	61	54	82
Likely	5	253	84	60	60
Possible	1	252	—	0	100
Doubtful	3	205	37	68	100

utes (10 students), and the mathematical section took 34 minutes (9 students). The data from the pilot study became suspect, however, for a couple of reasons. Students were clearly reluctant to ask the reader to reread test items. Also, since the study was not going to produce usable SAT scores, the motivation to guess was strong. For those reasons the pilot study was discontinued.

A DISCUSSION OF THE ISSUES

In this section we review the impetus for policy change and consider some of the major issues in eligibility and timing policy inherent in the current study.

Impetus for Policy Change

Regulations implementing Section 504 of the Rehabilitation Act of 1973 (U.S. Department of Health, Education, and Welfare 1977) mandated that admission tests for disabled people be validated and reflect the applicant's aptitude and achievement rather than any disabilities extraneous to what is being measured. It also prohibited inquiry into a person's disability status before college admission. However, test scores obtained in special administrations for disabled individuals have historically been flagged to indicate their nonstandard status. Since flagging was now perceived as violating the mandate against preadmission inquiry, it was not clear how the mandate could be carried out.

The Office of Civil Rights endorsed temporary interim guidelines that permitted flagging (Redden, Levering, and DiQuinzio 1978) and empaneled a committee under the auspices of the National Academy of Sciences to study the issue and make recommendations. The committee's report (Sherman and Robinson 1982) set forth a four-year program of research designed to provide validity studies and comparable test scores so that the mandate could be enforced and flagging could be discontinued.

In a multiyear, multiproject investigation of SAT scores from special test administrations, the College Board and ETS found that the scores were comparable to those from standard administrations in most important respects (Willingham et al. 1988), including reliability, construct validity, and predictive validity. Only one source of noncomparability presented a major problem:

> The primary source of noncomparability that is directly associated with test scores is the amount of time available in test administrations. That lack of comparability is, in principle, correctable by setting time limits in nonstandard administrations so that handicapped and nonhandicapped examinees are equally likely to finish the task. A principal conclusion of this report is that such empirically based timing should be attempted. This may prove difficult from a practical standpoint due to problems in differentiating among handicapped examinees as to type and severity of handicap.
>
> Assuming success in establishing appropriate time limits that take proper account of disabling conditions, admissions tests would then be largely comparable from a technical perspective. In that event, it is recommended that testing programs reevaluate flagging policies, taking into account what is fair to handicapped and nonhandicapped students, the interests of higher education institutions, and other considerations that may be important. (Willingham et al. 1988, p. xi)

The final chapter of *Testing Handicapped People* raised an issue that was of considerable concern to people in postsecondary education. Some admission officers suspected that procedures for obtaining a nonstandard administration were already being abused and feared further problems if flagging were removed:

> If flags were removed from scores obtained under nonstandard conditions, it might prove necessary for testing programs to undertake more stringent central monitoring of access to the nonstandard administration in order to avoid compromising the program. The practicality and desirability of such monitoring is an important factor to consider in determining flagging policy. (Willingham et al. 1988, p. 172)

The College Board and ETS funded the current study to produce guidelines on test timing for disabled examinees and to propose eligibility guidelines strict enough to prevent abuse of the testing policy for disabled examinees.

Eligibility

The focus of this section is on eligibility policy alternatives and the information needed for a consideration of a policy change. Alternatives in establishing an eligibility policy include keeping the current policy, changing to school-based criteria, changing to an individualized testing plan, or creating a policy containing some combination of eligibility plans. The strengths and weaknesses of each approach are considered.

Maintaining the Current Policy

The current policy (College Board, 1991) provides that students with IEPs and those without IEPs who provide two pieces of documentation that meet the program's guidelines are eligible for special accommodations. The guidelines include:

> Signed documents must be three years old or less, from two of the following: physicians, psychologists, child study teams, or learning disability specialists.
>
> Signed documents must describe the disability, the tests used in diagnosis, the need for special testing arrangements,

and an affirmation that the disability meets state guidelines for certification.

The documents must be on file at the school.

The major strength of the current policy is that it has been in effect for years without serious problems. However, it has several weaknesses: lack of central oversight of eligibility, lack of consistency in implementation, and an unintended bias in favor of children from middle- and upper-class families.

Lack of Central Oversight. The current system depends on local schools to determine whether individuals are eligible for special test accommodations. The single piece of evidence that is required centrally is a sign-off signature from a school official that the proper documentation exists. This could actually be perceived as a strength of the current procedure, since it takes the primary burden of responsibility off the program. However, it places responsibility for enforcement of the program's regulations on school officials, who are responsible for evaluating external documentation as well as internal records. There is no evidence that school officials actually check individuals' IEPs to ascertain that they meet the current requirement: The IEP must state the nature and the effect of the disability and the need for modified testing arrangements. There is also little assurance that school officials actually evaluate the authenticity of external documentation and whether that documentation meets the program's guidelines. If central oversight is needed to prevent abuse of the system when flagging is removed, the current policy would have to be amended.

Lack of Consistency. Data indicate that there is inconsistency associated with who takes special administrations of the SAT. Many students with IEPs took their SATs in standard administrations although they were almost certainly eligible for special accommodations. It is uncertain whether these students elected to test in standard administrations and whether they were given the option to take the test with special accommodations. It is possible that the current policy is working perfectly and that students with IEPs that met the requirements were tested in special administrations and those whose IEPs did not meet requirements (e.g., contained no statement on the need for modified testing arrangements) were tested in standard administrations. It is much more likely that schools are inconsistent in implementing the policy of special accommodations for individuals with disabilities. Special accommodations take considerable time and attention on the part of school personnel, who already have busy schedules. Many individual test administrations would consume a great deal of time and keep the test administrators away from other responsibilities. The current data cannot advise us of the reasons for an apparent lack of consistency in the provision of special accommodations to individuals with IEPs, but they do point out the inconsistency.

Cost of Eligibility. The current policy allows special accommodations to those individuals who provide adequate documentation of need from two different professionals. The majority of such documentation is provided on learning-disabled test takers. Outside of normal school-based procedures, such documentation requires considerable time and money to obtain. For that reason one might expect more affluent parents to provide such documentation for their children. Indeed, there is research to indicate that, over the 1980 to 1983 school years, the parents of learning-disabled students from special test administrations had mean annual incomes about $10,000 higher than those of the rest of the population of test takers (Ragosta 1987). It would be better to have a system in which eligibility did not depend on the ability to pay for documentation.

Maintaining the current policy is certainly easier and less expensive than trying to change it. The policy has worked relatively well and has caused few problems. It also may be inconsistently implemented, somewhat unfair, and inadequate if the flagging of test scores is discontinued.

Change to School-Based Criteria

A change to school-based criteria for special accommodations would seem fairer both to students and to the schools providing special test accommodations. It would attempt to create testing accommodations for disabled examinees comparable to those provided in their educational experience and create a smooth transition from high school, through testing, to postsecondary education. Those accommodations that have been accepted in high school and will be available in college through student services will generally be available in testing situations. For the most part, those accommodations already exist in the array of services provided for disabled individuals through the Admissions Testing Program.

An eligibility policy using school-based criteria would differ from the current one in two ways: Scores from special administrations would not be flagged if the candidate met the school-practices criteria, and schools would be responsible for planning special administrations for all their disabled students who were eligible on the basis of school practices only. To the extent possible, those tests should be administered to students in group administrations with section timing to help standardize the special test administration process. There should be no need to provide special testing accommodations to high school students with disabilities for which no educational accommodations have been made. However, if such test accommodations continue to be made on the basis of external evaluations, the resulting scores should probably be flagged.

How might the current procedures change under a new policy? Let us look at some possibilities.

An Application Questionnaire for Special Test Accommodations. An application questionnaire is the first step in the process of setting up special accommodations for disabled

college candidates. Its purposes are fourfold: (1) to obtain from students the information needed to document the disability and the educational accommodations provided to the students by schools, (2) to provide corroboration of the disability and the educational accommodations provided by schools from cognizant school officials, (3) to provide central oversight of the kinds of accommodations being requested and provided, and (4) to maintain and support the research and psychometric underpinnings for special test accommodations. The application form is envisioned as a one-sheet, two-page document that could be attached to the current application form and contains those questions deemed to be most relevant to the proper implementation and maintenance of the policy. Possible questions for such an application form are presented in Appendix B.

The use of an application form completed by students, reviewed by school personnel, and subsequently forwarded to ETS is a process with checks and balances to ensure equity. Students who do not qualify for special accommodations based on school practices will know at an early stage that they do not qualify. Students who do qualify will know well in advance that they can expect reasonable accommodations based on their educational experience. Schools will be encouraged to set up efficient testing programs for students with disabilities that are as comparable to the national program as possible.

Comparable Testing Conditions. Special test administrations can be made more comparable to standard administrations with regard to test pacing (section timing), test timing, and, to the extent possible, group testing rather than one-on-one administrations.

1. *Test pacing.* One aspect of timing that has not been comparable for disabled and nondisabled examinees is the use of time within the total testing period. In standard administrations, students are held to strict half-hour time periods for each section of the SAT. In special administrations, disabled students have been free to pace themselves, go back over their answers, and return to sections of the test they have already completed without constraint. Test pacing is certainly not comparable. Section timing could be implemented to create a more standardized version of special test administrations.
2. *Test timing.* The current research has provided sufficient data to make informed decisions on test timing. Between time and a half and double time appears to be sufficient so that comparable numbers of disabled and nondisabled students complete the test. Blind students requiring braille or cassette editions of the SAT—or multiply disabled students with similar requirements—need considerably more time: between double and triple time according to current research.

   The comparable time limits set forth in this study were based on special administration timing that did not generally put students under pressure to finish testing—certainly not the pressure under which students in standard administrations work. Therefore, to some extent the proposed time limits may be generous rather than restrictive. However, a few severely disabled individuals may not be able to be tested fairly under the proposed time limits, and some special mechanism is necessary to meet their needs.
3. *Group testing.* The current ATP policy under Plan B allows group administrations of the SAT on some national test dates for students with specific learning disabilities who need no accommodation other than extra time. That practice provides an efficient way of testing students who otherwise might require individual test accommodations. The practice has worked well and could be expanded. Plan B, operating on national test dates, could be opened to all disabled candidates who simply require extra time. Many deaf, hard-of-hearing, physically disabled, and visually impaired examinees could fit into the existing plan. Since about 80 percent of all examinees taking special administrations are learning-disabled students, opening up Plan B to other disabled students who meet the requirements would not overwhelm the system. It would simply provide the opportunity for some students with disabilities other than learning disabilities to take advantage of the SAT's Question and Answer Service and test at national administrations.

   The process of group administrations—whether called Plan B or not—could be encouraged in every high school with eligible disabled students. An institutional group administration of the SAT for qualified students with disabilities would be an efficient way for individual schools to provide many of their disabled students with the accommodations they need. Individual administrations would still be necessary for some students, e.g., those using braille and cassette editions or a reader, but most could be tested in group administrations. Consideration could be given to allowing large-print users to test in the same administration, since large-print editions could easily be provided. Time limits for all test takers in a particular group administration would be identical, at whatever limits the new ATP policy allowed.

Strengths and Weaknesses. The strengths of the proposed change to school-based eligibility criteria are manifold:

1. It is rational. Those accommodations provided for and used by qualified disabled students in their educational programs would be available to them for their college entrance examinations and subsequently available to them through student service programs in college. The whole process becomes

smooth, functional, and rational—comparable to the process for nondisabled students.
2. It is fair. Those with money cannot buy an advantage.
3. It places primary responsibility for defining eligibility on the educational system, which knows the child, the school practices for accommodating disabilities, the state guidelines, and federal law.
4. It sets up a system for efficiently testing students with disabilities in group administrations comparable to standard administrations, with section timing and empirically derived time limits. It also provides for individual administrations for those who cannot be tested in group administrations.
5. It maintains central ATP oversight of the process—and obtains data necessary to assure the ability to evaluate the statistical underpinnings of SAT scores from special test administrations—through the use of an expanded application form.

This policy would require that decisions be made about what school practices create eligibility for test accommodations. Should such accommodations be available only to disabled students with IEPs? Should testing accommodations be made whenever educational accommodations have been made for disabled individuals? Federal law is not helpful in defining those individuals who should be tested in standard versus special administrations. The data presented in this report could help define who qualifies.

One weakness of the proposed plan lies in its implementation. Any new policy requires time for people to understand its rationale and adapt to its changes. The current ATP policy has allowed schools to offer special accommodations to individuals who provided documentation meeting specific guidelines. If that policy is stopped, or an amended policy with regard to external documentation is implemented, extensive training and reeducating of school counselors will be required. Counselors will also need training on the new rationale and testing procedures and time limits for qualified disabled students. Ultimately the new process should allow for more efficient and systematic approaches to testing students with disabilities and save time for counselors rather than add to their work load. If counselors could be sure of that outcome, all qualified disabled students might be given more equal access to special test administrations.

Another weakness of the proposed plan is that it may hurt some severely impaired individuals who cannot be tested fairly under the proposed time limits. For example, although timing for examinees with cerebral palsy fell within the time and a half to double time limits, there may be some individuals within that group whose cerebral palsy is so severe that the proposed time limits would make it impossible for them to demonstrate their capabilities. Some procedure should be developed to assure fairness for the most severely disabled individuals in any category.

Individualized Testing Plans

If every student with a disability for which educational accommodations were made had an individualized testing plan, disabled students might be assured of getting testing accommodations that matched their needs. Such a possibility currently exists for disabled students with IEPs, and its existence is implied in the current ATP policy. An individualized testing plan for every student taking special test administrations might become an unwieldy plan that wastes valuable school hours. However, an individualized testing plan could be a valuable component of the IEP for students who need exceptional accommodations. For example, if a student with severe cerebral palsy required exceptional amounts of time to complete written assignments and tests, the IEP would contain a statement to that effect and a recommendation that exceptional amounts of time be given for standardized tests such as minimum competency tests for graduation and college admission tests. The recommendation in the IEP could be used as documentation in a request to ATP for appropriate amounts of extra testing time.

Using the IEP to document accommodations required in standardized testing situations is especially important for individuals with exceptional needs. The ATP policy should contain a statement allowing exceptional testing conditions when those conditions are stipulated in the IEP. Such special conditions might include the use of a hand-held calculator for individuals with dyscalculia or the use of word-processing equipment to write an essay for those with dyslexia. Since the IEP is based on the conclusions of a team of experts knowledgeable about the child and his or her needs, IEP recommendations carry considerable weight and should be implemented whenever possible.

Timing

The focus in this section is timing policy alternatives and the information needed to make informed decisions. Alternatives in establishing a timing policy include keeping the current policy or changing to one based on empirically derived time limits.

Maintaining the Current Policy

The current policy states that, under Plan A, the SAT may be administered over two consecutive days with no more than six hours of testing time per day, excluding breaks and lunch, and that all the allotted time does not have to be used. Under Plan B, 1½ hours of additional testing time—for a total of 4½ hours—is given at a national test center on two national test dates only for students with documented learning disabilities.

The strength of the current plan is that it is flexible, allowing up to 12 hours of testing time (Plan A) for five sections of the SAT, which in a standard administration would take 2½ hours. Because of that flexibility, valuable timing data has been collected and analyzed, and students

with exceptional timing needs—e.g., blind students using braille or cassette tests—are given an adequate amount of testing time, which is not available in many testing programs. The policy has also been in effect long enough so that it is widely known and accepted.

One of the weaknesses of the current policy is that it does not meet Recommendation 14.5 of the *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education 1985):

> Empirical procedures should be used whenever possible to establish time limits for modified forms of timed tests, rather than simply allowing handicapped test takers a multiple of the standard time.

Another weakness is that the current ATP policy creates noncomparable timing conditions for examinees in standard and special test administrations (Willingham et al. 1988). The noncomparability allows more disabled students to complete the SAT and makes items near the end of each section easier for some disabled examinees (Bennett, Rock, and Kaplan 1988). The noncomparability also helps produce SAT scores that overpredict the college performance of some disability groups (Braun, Ragosta, and Kaplan 1986). Increased amounts of testing time are associated with higher test scores (Centra 1986), and higher SAT scores from special test administrations are associated with increased overprediction of college performance (Braun, Ragosta, and Kaplan 1986). A new timing policy could help alleviate noncomparability and reduce or eliminate the overprediction of college performance.

Change to Empirically Derived Time Limits

A change to empirically derived time limits for special test administrations would be fairer to both disabled and nondisabled candidates; more conducive to efficient, comparable group testing; and likely to improve the validity of the SAT for predicting the college performance of examinees from special test administrations. The data are available on which to base decisions. Alternative policies could be built, based on strict versus more generalized interpretations and applications of the data.

Strict Interpretation of Empirical Data. Strict interpretation of the empirical data might require that independent decisions be made for each disability group and that different testing times be used in a nonflexible way for different subgroups of examinees with disabilities. Considerations in establishing the timing standards include:

- The selection of the appropriate completion rate for nondisabled examinees to be used as a standard for disabled examinees.
- The relative weights to give timing information based on normal curve distributions (Table 9), actual completion rates (Table 10), and smaller samples of students (Table 33) identified by likelihood of eligibility.
- Procedures for dealing with rounding times and/or percentages to meet ease-of-administration as well as comparability constraints.

Under such a plan, time limits might be based primarily on Tables 9 and 10, which contain data on the largest number of examinees. For ease of administration, timing decisions might be restricted to 5-minute intervals beyond the standard 30 minutes, e.g., 35, 40, and 45 minutes rather than all the possibilities in between. Such policy decisions on timing would resemble the sample policy presented in the last column of Table 40, which is based on a 54.5 percent completion rate. The data from Tables 9 and 10 in the first three columns have been consistently rounded upward to the next 5-minute increment; for example, 46 minutes in Table 9 was rounded upward to 50 minutes for the first entry for hearing-impaired students in Table 40. The sample policy represents the 5-minute intervals closest to the average. The timing decisions in Table 40 vary from a low of 45 minutes per section for deaf and hard-of-hearing examinees to a high of 80 minutes per section for blind examinees using braille and correspond rather well to the data in Table 33. Other decision rules, however, would have produced slightly different results.

The primary problem with the timing decisions of Table 40 is the variation within disability categories. For example, time differences between the use of regular print and large print vary by 5 or 10 minutes per section—not for examinees with visual impairments, but for examinees with learning disabilities, physical disabilities, and multiple disabilities. Thus the selection of a test version—in this case

Table 40. Sample Timing Policy Decisions

	Statistical Results			
	Packer	*Current (Table 9)*	*Actual Time (Table 10)*	*Sample Policy*
Hearing				
Regular	50	45	45	45
Learning				
Cassette	55	55	55	55
Large print	55	55	50	55
Regular print	55	50	50	50
Physical				
Large print	60	60	55	60
Regular print	55	55	50	55
Visual				
Braille	80	80	75	80
Cassette	70	75	75	75
Large print	55	55	50	55
Regular print	55	55	50	55
Multiple				
Cassette	—	60	60	60
Large print	—	65	60	65
Regular print	—	55	50	55

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the large-print version—would give an examinee additional testing time over the regular-print version. This could lead to increased use of the large-print version simply because of the increased time involved. It might be difficult to pinpoint the exact category in which an examinee belonged, and the multiple categories are accompanied by multiple time limits: section limits of 45, 50, 55, 60, 65, 75, and 80 minutes. Test administration would be complicated enough that mistakes could easily be made in matching the timing to the disability and test edition used. An alternative method of setting time limits could facilitate test administration.

Generalized or Smoothed Interpretation. A more generalized interpretation of the empirical data might consider a different set of decision rules, perhaps guided by test administration and eligibility decisions. Considerations include the following:

1. According to Table 10, except for blind examinees requiring braille or cassette editions of the SAT (or examinees with multiple disabilities including blindness), a 50-minute rule on section timing would provide enough time so that roughly comparable percentages of disabled and nondisabled students would complete the test. Deaf examinees would get somewhat more time than needed, a small number of physically disabled examinees who use large print might need somewhat more time, and some learning-disabled students who use the cassette edition of the SAT might need more time.
2. Willingham et al. (1988, p. 178) recognized that the timing for disabled examinees differed from that for the nondisabled in an important aspect:

   > An obvious shortcoming of the data . . . for deciding how much time might be appropriate for examinees with a particular type of handicap is the fact that the [disabled] test takers on whom the data are based were working on the assumption that ample time was available if needed.

   The insight that disabled test takers were not under time pressure to complete the test implies that any timing decisions made on the basis of the empirical data are likely to be generous.
3. The method for determining completion rates for the general population is likely to result in overestimating the percentage of examinees who "complete" the test. Marking the final answer in any section is the definition of completion of that test section. But some examinees may just fill in the last answers without reading the questions when the testing time is almost up. Some examinees may skip time-consuming questions, intending to return to them later. Such strategies could allow nondisabled examinees to mark the last answer without having "completed" the test. On the other hand, those individuals who did, in fact, complete the test but failed to mark the last question because they were unsure of the answer would not be counted as having completed the test. The completion rates for nondisabled examinees used in this study may be overestimates of actual completion rates.
4. In the earlier discussion of eligibility, the need for an "escape clause" was put forth. Certain severely impaired examinees might not be able to be tested fairly within established time limits, necessitating a policy that allows for time extensions in special cases. If escape clauses are built into the timing policy, time limits based on comparable completion rates for examinees remaining in any category might need to be lowered. If only a few time extensions were permitted, there would be no problem, but if many individuals in any category of disability were to make use of the escape clause, time limits for remaining examinees would need to be lowered. An example from an actual distribution may help clarify the point. In Figure 5, if all the individuals who are represented in the area to the right of the limit (80 minutes) qualified for and were given extra time beyond 80 minutes, then to the extent that they completed the test, comparable numbers of individuals to the left of the line should not have enough time to finish. Thus the overall completion rate would remain equivalent to that of the nondisabled population of test takers. The method for allowing fewer individuals to complete the test is to decrease the amount of time allowed.

The effect of considerations (2) through (4) might be to decrease the 50-minute section timing of (1) above to 45 minutes as a general rule, and to allow up to an hour for

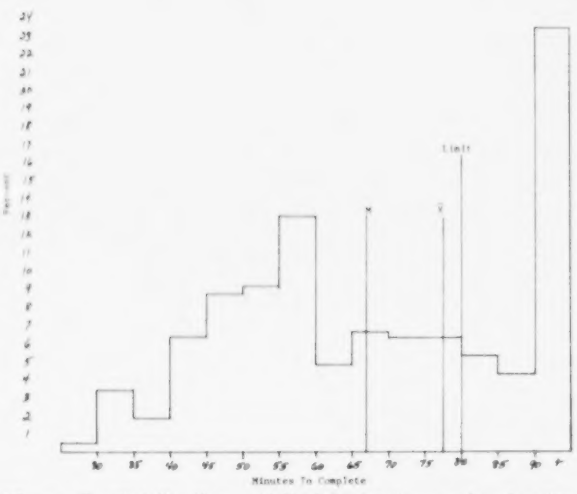

Figure 5. Distribution of blind test takers using braille SATs.

more severely disabled individuals who can document the need for more time. On occasion, a rare individual whose IEP indicates a consistently greater need might be given more than an hour per section. The exception to such a policy, of course, would be blind students using braille or cassette editions of the SAT or multiply disabled examinees who are blind. Up to 75 minutes per section might be allowed for such individuals, although many might be able to finish in considerably less time.

SUMMARY AND CONCLUSION

The introduction to this report stated that the purpose of the study was to establish empirically derived testing times for special administrations of the SAT for examinees with disabilities. A secondary purpose was to establish eligibility guidelines for individuals taking special test administrations.

First the data bases used for the timing studies were described. Timing data indicated that for the most part, comparable percentages of disabled and nondisabled students completed the SAT when disabled examinees were given between time and a half and double time for special test administrations. Blind students, for whom print was not accessible or not feasible as a medium for testing and for whom braille or cassette tape was the preferred accommodation, required between two and three times the standard testing time.

An eligibility hierarchy based on school practices was set forth, and that eligibility distribution was used to examine students from both standard and special SAT administrations. Two concerns emerged from the eligibility studies: (1) that many students who appeared to be eligible for special accommodations were testing in standard administrations, and (2) that some students who were testing in special administrations had presented no record of receiving accommodations of any kind in their educational experience.

Considerations of policy change regarding eligibility and timing were set forth. The existing eligibility policy was discussed in view of the current research results. The implications of changing to school-based criteria for eligibility were presented together with the need for some individualization of the policy in cases of especially severe disabilities. The strengths and weaknesses of the current policy, a policy using school-based criteria, and an individualized policy for eligibility were presented. With regard to timing, a similar set of considerations was presented. Alternatives in establishing a timing policy included keeping the current policy or changing to one based on empirically derived time limits.

The information and data from the current report should be the basis for a consideration of changes to existing eligibility and timing policies on testing individuals with disabilities.

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APPENDIX A. DISABILITY QUESTIONNAIRE

Part 1

1. Did you ever have an official IEP (Individualized Education Program) in school? (Check one on each line.)

Elementary School?	☐ No	☐ Yes	☐ Don't Know
Middle/Jr. High?	☐ No	☐ Yes	☐ Don't Know
High School?	☐ No	☐ Yes	☐ Don't Know

2. What were the other students like in your most recent high school English and math classes? (Check one.)

☐ Mostly students with disabilities (in a separate school, a separate class, or a special program)

☐ Mostly students without disabilities (in a regular classroom in a regular school)

☐ A combination (some classes with disabled students and some without)

3. Were you usually given extra time to produce written materials in class?
☐ No ☐ Yes

4. For high school English or math tests were you ever given any of the following because of your disability?

A braille, cassette, or large-type test?	☐ No	☐ Yes
A different test from the rest?	☐ No	☐ Yes
Somebody to read the test to you?	☐ No	☐ Yes
Somebody to record your answers?	☐ No	☐ Yes
Somebody signing the test?	☐ No	☐ Yes
A separate location for testing?	☐ No	☐ Yes
Extra time to take the test?	☐ No	☐ Yes
Other special accommodations?	☐ No	☐ Yes

If yes, what? _____

5. If *non*handicapped students are given 30 minutes to write an essay, how much time do you think students with your disability would need to write a similar paper?

☐ 30 minutes
☐ 45 minutes
☐ 60 minutes
☐ More than 60 minutes. How much time? _____

What other special help would they want?
☐ No special help
☐ Use of a typewriter
☐ Use of a tape recorder
☐ Somebody to write what they want written
☐ Something else. What? _____

_____

_____

Part 2

Please answer as many of the following as are appropriate depending on whether you have a learning, hearing, visual, physical, or psychological disability. These question are necessary to help us identify groups of students who may need special accommodations.

6. Do you have a *learning disability* (LD)?

☐ No (Skip to question 7.) ☐ Yes (Please answer 6a–6d.)

6a. Do you have dyslexia?	☐ No	☐ Yes	☐ Don't Know
6b. Do you have dyscalculia?	☐ No	☐ Yes	☐ Don't Know
6c. Do you have an attention deficit?	☐ No	☐ Yes	☐ Don't Know
6d. Do you have a perceptual problem?	☐ No	☐ Yes	☐ Don't Know

7. Do you have a *hearing impairment?*

☐ No (Skip to question 8.) ☐ Yes (Please answer 7a–e.)

7a. Can you hear speech?	☐ No	☐ Yes
7b. Do you lipread?	☐ No	☐ Yes
7c. Do you sign?	☐ No	☐ Yes

7d. Which do you feel most comfortable with? (Check one.)

- ☐ ASL
- ☐ Total Communication
- ☐ English

7e. How did your high school teachers talk to you? (Check all that apply.)

- ☐ Using spoken English (oral method)
- ☐ Using English and sign (total communication)
- ☐ Using sign only
- ☐ Using an interpreter

8. Do you have a *visual disability* (one that is not correctable by glasses)?

☐ No (Skip to Question 9.) ☐ Yes (Please answer 8a–b.)

8a. Which of the following best describes you? (Check one.)

- ☐ I am totally blind.
- ☐ I am legally but not totally blind.
- ☐ I am visually impaired but not legally blind.

8b. How do you usually read books? (Check all that apply.)

- ☐ In regular print
- ☐ In large print
- ☐ In braille
- ☐ On tape
- ☐ With a reader

9. Do you have a *physical disability?*

☐ No (Skip to question 10.) ☐ Yes (If yes, what?)

☐ Cerebral palsy	☐ Brain injury
☐ Spina bifida	☐ Epilepsy
☐ Post polio	☐ Diabetes
☐ Muscular dystrophy	☐ Tourette's syndrome
☐ Multiple sclerosis	☐ Heart disease
☐ Quadriplegia	☐ Asthma
☐ Paraplegia	☐ Arthritis

☐ Other (Please describe)_____

10. Do you have a *psychological or an emotional disability?*

☐ No (Skip to 11.) ☐ Yes

If yes, what testing conditions are most appropriate for you?_____

_____

_____

11. Did your disability occur *after* you had completed most or all of your high school education?

☐ No ☐ Yes

12. May we contact you if we need further help on appropriate testing accommodations?

☐ No ☐ Yes Phone #_____

RETURN TO RAGOSTA (06-R) EDUCATIONAL TESTING SERVICE, PRINCETON, NJ 08541

THANK YOU THANK YOU THANK YOU

APPENDIX B. DRAFT APPLICATION FORM FOR SPECIAL TEST ADMINISTRATIONS

I. *Disability Status* (Check all that apply.)

A. Are you:

_____deaf? _____hard of hearing?

_____blind? _____visually impaired?

B. Do you have a:

_____specific learning disability?

_____physical disability?

_____psychological disability?

C. In what year was your disability first diagnosed?_____

PLEASE INCLUDE CURRENT DOCUMENTATION FROM A DOCTOR, PSYCHOLOGIST, PSYCHIATRIST OR OTHER APPROPRIATE PROFESSIONAL CERTIFYING TO YOUR DISABILITY.

II. Past Accommodations Made for Your Disability

A. *In high school:*

_____No _____Yes Were you in a special school or special program?

_____No _____Yes Did you have an individualized education program (IEP)?

_____No _____Yes Did you get special accommodations for classroom tests?
_____No _____Yes Did you generally get extra time for classroom tests?

B. *For standardized tests:*

_____No _____Yes Have you taken standardized tests in special formats or with personal assistants or extra testing time? (If yes: In each column, check all that apply.)

1. Special format:
_____Braille
_____Audio
_____Large print
_____Sign

2. Assistants:
_____Reader
_____Scribe/recorder
_____Sign language interpreter

3. Extra testing time:
_____Less than time and a half
_____Time and a half
_____Double time
_____More than double time

For what test(s) did you receive these accommodations?

_____

_____

PLEASE INCLUDE DOCUMENTATION OF SPECIAL SERVICES AND TESTING ACCOMMODATIONS YOU RECEIVED IN SCHOOL BECAUSE OF YOUR DISABILITY.

III. I certify the above statements to be true.
(Signed)_____

(Continued on the back. Please see other side.)

IV. *Accommodations Requested:* (Check all that apply.)

1. Access to:
_____Regular print
_____Large print
_____Audio
_____Braille
_____Sign

2. Assistants:
_____None needed
_____Reader
_____Scribe/recorder
_____Sign language interpreter

3. Extra testing time:
_____None needed
_____Less than time and a half
_____Time and a half
_____Double time
_____More than double time

4. Extra breaks:
_____No
_____Yes

5. Separate testing location:
_____No
_____Yes

6. Any other request(s):
_____No
_____Yes (List below)

IN A SEPARATE LETTER, PLEASE DESCRIBE YOUR DISABILITY AND THE ACCOMMODATIONS YOU ARE REQUESTING. MAIL THE LETTER, THIS FORM AND THE REQUESTED DOCUMENTATION TO:

[Program name and address here]

(Applicant, please do not use the space below. For [program] use only)

V. Accommodations granted:

1. Access to:
_____Regular print
_____Large print
_____Audio
_____Braille
_____Sign

2. Assistants:
_____None needed
_____Reader
_____Scribe/recorder
_____Sign language interpreter

3. Extra testing time:
_____None needed
_____Less than time and a half
_____Time and a half
_____Double time
_____More than double time

4. Extra breaks:
_____No
_____Yes

5. Separate testing location:
_____No
_____Yes

6. Any other request(s):
_____No
_____Yes (List below)

VI. *Identification*

Test date?_____

Test location?_____

Test form?_____